DOCUMENT RESUME

ED 147 279 SP 011 875

TITLE School Health Assessment: West Virginia School Health Development and Education Project.
INSTITUTION West Virginia State Dept. of Education, Charleston.
SPONS AGENCY West Virginia Univ., Morgantown. Regional Medical Program.
PUB DATE 77
NOTE 200p.

EDRS PRICE MF-$0.83 HC-$10.03 Plus Postage.
DESCRIPTORS Curriculum Evaluation; *Educational Assessment; *Health Education; Health Needs; Knowledge Level; *Program Improvement; *Secondary Education; *State Surveys; Student Attitudes; Teacher Behavior
IDENTIFIERS *West Virginia

ABSTRACT

This document is a final report of the West Virginia School Health Development and Education Project and consists of the results of five discrete studies and a summary of objectives and outcomes, findings and recommendations. The five studies, conducted over a period of sixteen months in grades 7-12, were: (1) Health Class Offering Study; (2) Health Education Assessment Survey; (3) Statewide Health Knowledge Assessment; (4) Comprehensive School Health Education Case Studies; and (5) Survey of Existing Data on Health Problems of School Age Children in West Virginia. Twelve findings were reported from analyses of the data collected, including: course enrollment and offerings are minimal; knowledge levels are below national norms; highest knowledge levels are in areas perceived by teachers and administrators to be most important; students show interest in areas in which they have some knowledge, and little interest in areas in which they have little or no knowledge; they indicate interest in areas of immediate concern (e.g. family and mental health); career and consumer health are little emphasized; health problems are not restricted to the adult population; many areas of the public are willing to work toward improving school health programs. Based on these findings, the following recommendations, among others, were made: develop curriculum and learning experiences; expand the definition and understanding of health education beyond "structure and function of the human body"; increase instruction in career and consumer health; promote lifelong health studies; update evaluation instruments of student behavior and teacher knowledge and behavior; expand assessment to include early childhood, elementary, and middle school levels; promote school assessment of health program offerings within each county. Appendices include instrumentation and raw data from the study. (MJB)

Documents acquired by ERIC include many informal unpublished materials not available from other sources. ERIC makes every effort to obtain the best copy available. Nevertheless, items of marginal reproducibility are often encountered and this affects the quality of the microfiche and hardcopy reproductions ERIC makes available via the ERIC Document Reproduction Service (EDRS). EDRS is not responsible for the quality of the original document. Reproductions supplied by EDRS are the best that can be made from the original.

ED147279

wva school health

school health assessment

west virginia school health development and education project

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

health

SP011 875

west virginia department of education

west virginia department of education

Daniel B. Taylor
State Superintendent of Schools
West Virginia Department of Education

Phil E. Suiter
Assistant State Superintendent
Bureau of Learning Systems

Martha R. Buckley
Curriculum Development Specialist,
Health

Division of Instructional Learning Systems
Charleston, W. Va. 25305

a report of the west virginia school health education assessment project

through a grant from the west virginia regional medical program

1977

WEST VIRGINIA BOARD OF EDUCATION
EXECUTIVE OFFICES
Charleston, West Virginia 25305

Dr. Carl J. Roncaglione, President
Charleston, 1981

Bob E. Myers, Vice President
Huntington, 1985

Dr. Samuel J. Baskerville, Secretary
Charleston, 1980

Perce J. Ross, Member
Buckhannon, 1977

James Paul Geary, Member
Petersburg, 1978

Ex Officio Member
Dr. Daniel B. Taylor
Superintendent
West Virginia Department of Education

Fountie N. Williams, Member
Clarksburg, 1979

William M. Smith, Member
Follansbee, 1982

Mrs. Mary Martha Merritt, Member
Beckley, 1983

Dr. Charles H. Wagoner, Member
Weston, 1984

Ex Officio Member
Dr. Ben L. Morton
Chancellor
West Virginia Board of Regents

TASK FORCE MEMBERS

Richard Wanderman, Chairperson
West Virginia School Health Task Force
Charleston

Janet Canterbury
Bureau of Planning, Research and Evaluation
West Virginia Department of Education

William Copper
Area Liasion Office
West Virginia Regional Medical Program

Anita Ellis
Food Services
West Virginia Department of Education

Thomas Gray
Health Education
State Health Department

Jenny Heermans
West Virginia Congress of Parents and Teachers

Rosemary Leaseburg
Union High School
Mt. Storm

Gene Maguran
Bureau of Services and Federal Assistance
West Virginia Department of Education

Nancy McFarlane
Davis and Elkins College

Marvin Mills
Center on Safety
Marshall University

Walter Morgan
Division of Preventive and Community Medicine
West Virginia University

William Mullett
Student Support Services
West Virginia Department of Education

Bea Orr
Health and Physical Education
Logan County Schools

Robert Patterson
West Virginia Department of Education

Frank Peto
Curriculum Improvement Center
Region VIII

Genevieve Smith
Charleston

Harry Stansbury
State Director
Comprehensive Health Planning

William Ternent
West Virginia Regional Medical Program

Robert A. Walker
College of Human Resources and Education
West Virginia University

Martha R. Buckley
Curriculum Development Specialist, Health
West Virginia Department of Education

Committee Members

Dave Butcher
Mineral Wells Elementary School

Robert D. Whitler
Consumer and Continuing Medical Education
Charleston Area Health Education Center

Gale Hammett
Health and Physical Education
Wood County Schools

June Zakutansky
Health and Physical Education Department
Weir High School

Albina Mancos
Mineral Wells Elementary School

Elmer Freese
Health and Physical Education
Ohio County Schools

Jane Alderman
Executive Director
Health, Incorporated

Peter A. Haley
Medical Consultant
Kanawha County Schools

Linda Hickman
Bureau of Public Health Nursing
State Health Department

Dennis Benson
Curriculum Improvement Center
Region VIII

Jerry R. Hummel
Project Director
Mon Valley Health

Elinor McQuail
Bluefield

Gary Petz
Health Planning Council of Regions IV & VIII

Thomas L. Thomas
Ohio County Health Department

Evelyn Weirick
Jackson County Schools

Martha Foster
Kanawha County Schools

Wilma Bays
Kanawha County Schools

Robert Murray
State Department of Education

Randy McCutcheon
Continuing Education
Charleston Area Medical Center

Patricia A. Petty
ESEA Title IV, Part C
State Department of Education

Joseph Basile
Division of Instructional Learning Systems
West Virginia Department of Education

Ernest Berty
Bureau of Planning, Research and Evaluation
West Virginia Department of Education

Edwin DeBarr
State Department of Health

Homer Gandee
Kanawha County Schools

Cy Johnson
State Department of Education

William Patton
Southern West Virginia Regional Health Council

Russell Perkins
State Fire Marshal's Office

Scott Scobell
West Virginia State College

LIST OF TABLES

Table 1. Mean, Standard Deviation and National Percentile of West Virginia Eleventh Grade Students by Sex.

Table 2. Mean, Standard Deviation and Percent of Preferred Response in Content Area of West Virginia Eleventh Grade Students by Sex.

Table 3. Health Behavior Inventory: Mean, Standard Deviation and National Percentile of Site A Eleventh Grade Students by Sex.

Table 4. Health Behavior Inventory: Mean, Standard Deviation and Percent of Preferred Response in Content Area of Site A Eleventh Grade Students by Sex.

Table 5. Health Interest Inventory: Mean and Standard Deviation of Site A Eleventh Grade Students by Sex.

Table 6. Health Interest Inventory: Mean and Standard Deviation of Site A Eleventh Grade Students by Interest Area and Sex

Table 7. Health Needs Inventory: Mean and Standard Deviation of Parents' Perception of Students' Needs at Site A by Area.

Table 8. Health Needs Inventory: Mean and Standard Deviation of Faculty's Perception of Student's Needs at Site A by Area.

Table 9. Health Education Goals Survey: Degree to Which Students in Site A Have Achieved Selected Health Education Goals as Perceived by Key Health Personnel

Table 10. Health Instruction Survey: Hindrances to the Health Instructional Program as Perceived by Key Health Personnel at Site A.

Table 11. Comparing the Age of the Mother with Births.

Table 12. Infant Mortality Rate Per 1000 Live Births by Age of Mother.

Table 13. Infant Mortality Rate by Live Birth Order by Age of Mother, West Virginia

Table 14. Number of Resident Births by Time Prenatal Care Began, by Legitimacy Status and Education of Mother.

Table 15. Marriages by Age of Bride and Groom.

Table 16. Divorces and Annulments by Age of Husband and by Age of Wife.

Table 17. Newly Reported Cases of Venereal Disease in Civilians by Age and Sex, United States.

Table 18. Primary and Secondary Syphilis.

Table 19. Congenital Syphilis.

Table 20. Child Neglect and Abuse in West Virginia. Report January to August 1975.

Table 21. Principal Causes of Death by Residence Ranked; Cause Classified by Age Groups and Sex.

Table 22. Number of Resident Deaths by Important Causes by Age Groups.

LIST OF FIGURES

Figure 1. Health Behavior Inventory Profile: Comparison of West Virginia Males and Females.

Figure 2. Health Behavior Inventory Profile: Comparison of National and West Virginia Males.

Figure 3. Health Behavior Inventory Profile: Comparison of National and West Virginia Females.

Figure 4. Health Behavior Inventory Profile: Comparison of Males and Females in Site A.

Figure 5. Student Health Interest Profile: Comparison of Males and Females in Site A.

Figure 6. Health Interest/Need Inventory Profile: Comparison of Students' Interest with Faculty and Parents' Perception of Student Needs in Site A.

Figure 7. Ideal Health Curriculum Profile: Perception of Key Health Personnel at Site A.

Figure 8. 1973 West Virginia Births by Age of Mother.

TABLE OF CONTENTS

PHILOSOPHY AND ACKNOWLEDGEMENTS

CHAPTER I -- INTRODUCTION

CHAPTER II -- STUDIES

- A Health Class Offering Study
- B Health Education Assessment Survey
- C Statewide Health Knowledge Assessment
- D Comprehensive School Health Education Case Studies
  - Descriptive Profile
  - Health Behavior Inventory
  - Health Interest Inventory
  - Health Needs Inventory
  - Health Education Goals Survey
  - Health Education Survey
  - Ideal Health Curriculum Survey
  - Findings of Site A
    - HBI
    - HII
    - HNI
    - HEGS
    - HIS
    - HCS
  - Recommendations
  - Summary
  - Sites A, B, and C Combined
- E Survey of Existing Data on Health Problems of School Age Children in West Virginia
  - Nutrition
  - Pregnancy
  - Marriage and Divorce
  - Venereal Disease
  - Child Neglect and Abuse
  - Principal Causes of Death
  - Summary

CHAPTER III ---SUMMARY

- Objectives and Outcomes
- Findings
- Recommendations

CHAPTER IV --- BIBLIOGRAPHY

APPENDICES

- A School Health Program Goals
- B Student Outcome Goals
- C Survey of Health Education in West Virginia
  - Table A
- D Selection Procedure
- E Raw Scores
  - Figures 1 Females
  - 2 Males
- F Health Behavior Inventory
  - Tables B, C, and D
- G Health Interest Inventory
- H Health Needs Inventory
- I Health Education Goals Survey
- J Health Education Survey
- K Health Curriculum Survey
- L Health Interest and Needs Inventory, Parents, Students, and Faculty
  - Summary of Tables E through O
  - Summary of Tables E through O
- M Health Interest Inventory - Sites B and C
  - Table P
- N Health Behavior Inventory - Sites B and C
  - Tables Q and R
- O Survey of Existing Data on Health Problems of School Age Children in West Virginia
  - Table S. Marriages by Age of Bride and Groom
  - Table T. Divorces and Annulments by Age
  - Table U. Divorces and Annulments by Duration of Marriage
  - Table V. Gonorrhea - Primary and Secondary Syphilis
  - Table W. Congenital Syphilis
  - Table X. Age of Admission To Drug Treatment Programs
  - Table Y. Drug Related Deaths
  - Table Z. Cancer Deaths

philosophy and acknowledgements

PHILOSOPHY AND ACKNOWLEDGEMENTS

The concept of school health programs has changed in recent years from a singular emphasis on "absence of disease or infirmity" to a view which focuses on the individual's understanding of the impact of the social, emotional, intellectual, physical, and spiritual aspects of his/her health status. In short, physical impairment, controlled disease (or lack of it), is no longer an acceptable total indicator of one's health status. In this newer view there is increasing emphasis on each individual accepting greater self responsibility for his/her health.

"The goal [for health education] is for individuals to internalize the values and patterns of behavior associated with healthful living and to build these into child rearing practices so that future generations will not be faced with the same illness conditions" (Simmons, 1976, p. 430). This quote is representative of the progress since the turn of the century in redefining health education as the "absence of disease or infirmity."

One's health status can only be measured on a continuum which does not remain constant. Russell (1975) says, "Health is the term used to refer to the quality of functioning of a person in totality" and that "health education goes on continuously, because it can relate to any and all behaviors that make up an active day, week . . . and ultimately, life. Knowledge, attitudes, behavior . . . or what you know, how you feel, physically and mentally, and what you do and do not do, are constantly being reinforced, modified, changed -- or some dynamic combination of these" (page 32).

The social, emotional, physical, intellectual and spiritual aspects of an individual's life style result in value judgments which have impact on individual health status. Health education in schools must go beyond "blood and guts," disease, and drug abuse. Isolated issue oriented programs remain abstract unless they emphasize the individual internalizing the issue to his/her preferred health behavior.

"In support of this approach to health education the American Medical Association (AMA) recently stated 'the primary purpose of health education is to help people establish patterns of living that will discourage disease and enhance health, thus improving the quality of life.' They further state that four major developments have emerged in American society during the past seventy-five years; 1) 'the emergence of major disease problems that are intimately related to patterns of living learned early in life.' It would appear that school health instruction could have an impact upon this early learning; 2) 'the emergence of a health care delivery system that depends for its successful functioning on informed and motivated consumers.' This development speaks to the heart of the educational system in the United States; 3) 'the emergence of the idea that health is a state of total positive functioning, not just the absence of disease.' This concept should receive a prominent place in all of health education throughout life whether in school or community; and, 4) 'the emergence of an ecological view of the world that sees man as synergistically and simultaneously related to all of his environments and that recognizes that attempts to improve human well-being must be viewed within this broad perspective' " (Jones, 1975).

While the AMA views encompass the entire "womb to tomb" population, the implications for the role and responsibilities of a West Virginia School Health Program are clear. The four points stated in the major health education developments are entwined throughout the Educational Goals for Public Education in West Virginia (State Department of Education, 1975). The physical, social, emotional, intellectual, and spiritual growth of the student will enhance the mastery of stated skills to be developed and increase the application as a consumer and maintainer of his/her health.

In developing a school health program and preparing to assist others in implementing it, the West Virginia School Health Task Force designed a procedure for collecting health education and health related data from students, teachers, administrators, service personnel, and parents. The data collected should aid interested individuals in the development and/or improvement of West Virginia's school health programs within their schools and county systems. Such individuals may also use the procedure to better assess student knowledge and interests, parent and faculty perceptions of the child's needs, and the views of school personnel concerning a school health instructional program.

This project attempted to better define the existing condition of school health programs in West Virginia and to identify a useful model or models which may be used to improve local or county-wide school health programs. The project did initiate the communication of various publics concerned with school health programming. The interest and commitment of many individuals have made the success of this project.

As with any task the acknowledgement list is never totally complete. This project is only a beginning and those not involved in this effort are encouraged to participate in future projects.

A special thanks and appreciation are extended to:

- The State School Health Task Force who faithfully attended meetings and indulged in activities which supported and promoted the Task Force efforts.

- Dr. Herb Jones, Ball State University, whose guidance, expertise, and resources were vital to the project and Project Director

- Mr. Robert Walker, West Virginia University, for his support, suggestions, time, and the utilization of his graduate students and their enthusiastic research contributions.

- Dr. William Ternent, West Virginia Regional Medical Program, for constant support, motivation, and expertise.

- Dr. Robert Childers, Appalachia Educational Laboratory, whose perseverance to overcome insurmountable problems placed him "above and beyond."

•Mrs. Nancy McFarlane for her statistical report and her writing contributions to this report.

•The schools, principals, teachers, students, and supervisors who willingly participated when already busy schedules deemed cooperation almost impossible.

•The West Virginia Regional Medical Program for funding this endeavor, and

•Ms. Barbara Caldwell, Terri Jones, Paula Minor, Sara Miller, and Doris Nunley for their typing and assistance.

Martha R. Buckley
Project Director

chapter 1

INTRODUCTION

In 1974, the West Virginia Comprehensive Health Planning Primary Care Task Force utilized the telelecture system to discuss health education with educators, physicians, and health planners throughout the state. The report of their findings state that medical personnel find young people extremely difficult to treat because of their lack of knowledge and understanding of their body functions, their inability to make rational decisions regarding their health behavior, and their lack of understanding and utilization of health services.

This preliminary study indicated a need for inquiry into existing school health programs. Through the West Virginia Regional Medical Program and the Comprehensive Health Planning Agencies, contact was established with the State Department of Education for the purpose of writing a proposal for developing a school health program. The West Virginia Regional Medical Program ultimately funded the State Department of Education ($30,000.00) to develop and implement an assessment procedure which would provide feedback and enable decision-makers to make modifications to and improve the Comprehensive School Health Education Program. To meet this objective, a state level task force was selected to provide guidance in the completion of the project. The State Department of Education, health specialist served as project director, and the task force was selected from among those individuals throughout the state who are members of health related organizations and/or directly involved in health services, planning, and education. The task force consists of health educators in higher education and public schools, health planners, health providers, school administrators, and representatives of school and community organizations.

The project was organized to explore the following five objectives:

- Defining the objectives of a school health program.
- Stating the objectives in terms of desirable student outcomes.
- Deciding what kinds of data would be valuable in analyzing existing school health programs.
- Determining ways of finding what exists in West Virginia school health programs.
- Making recommendations regarding the West Virginia school health program.

The task force conducted monthly meetings from February, 1975 through October 1975. These meetings began with organizing and defining the role and responsibilities of the task force. Elected chairperson, Richard Wanderman, M.D., presided over the meetings. The 17 members of the task force identified issues and concerns regarding school health programs in West Virginia.

The results of the meetings provided expert guidance for developing school health program objectives, school health education student outcomes, and structure for the assessment procedure.

To accomplish the program objectives and student outcomes the task force members chaired four committees: environment, service, instruction, and community coordination. Each committee was composed of two task force members plus representatives from school health programs and health related agencies. The committees wrote objectives for each phase of the school health program which were submitted to the task force. These health program objectives were then written as School Health Program Goals. (See Appendix A).

The student outcomes were developed from the school health program goals. (See Appendix B). These student outcomes were to assist in the assessment phase rather than serve as a final basis for program or curriculum development.

The final step was the assessment phase which was to be statewide. The task force and committees collectively formulated the hypothesis that:

> School health programs in West Virginia are either non-existent or ineffective in terms of achieving goals of health education as they relate to the individual.

Thus, the task force wanted to know about what programs and components of programs such as curriculum and services were available, the personnel involved in curriculu, and the attitudes of the family and students as they relate to school health. Recognizing that not all factors could be measured by this project, the task force felt that the emphasis should be on the student. Therefore, assessment of student outcomes would be most important. The task force set forth the following directions for the data collection.

The student outcome data should enable analysis of:

- Health knowledge of students.
- Existing information concerning the health status of the school age child.
- Students' interests in areas of health studies.
- Existing school health programs.
- The procedures the state and school systems utilize in developing and operating school health programs.

The selection of a focus on student outcomes was based upon factors of economics and time plus a belief that it would have the greatest impact on the problem. This focus was not an attempt to dismiss the service and environment components from future consideration since a comprehensive program requires integration of all three. The instructional component assessment was intended as the entry **not** the exit.

The following studies were completed as a means for obtaining data:

A) **Health Class Offering Study**

B) **Health Education Assessment Survey**

C) **Statewide Health Knowledge Assessment**

D) **Comprehensive School Health Education Case Studies**

E) **Survey of Existing Data on Health Problems of School Age Children in West Virginia.**

The findings of these studies are presented in the above sequence and provide a perspective of West Virginia school health programs.

The first study was compiled and completed by Nancy McFarlane, Davis and Elkins College. The Bureau of Planning, Research and Evaluation developed and administered the **Health Education Assessment Survey.** The project director contracted the services of Appalachia Educational Laboratory to administer and tabulate the final three studies.

chapter 2

STUDIES

The five studies were conducted separately and during different times over a period of 18 months. The findings of the **Health Class Offering Study** and the **Health Education Assessment Survey** were instrumental in providing direction to the final three studies.

A) **Health Class Offering Study**

The extent of health instruction was determined by analysis of data based on computer figures received by the State Department of Education regarding health offerings and enrollments in West Virginia for the 1974-75 academic years. The computer print-out includes the county, school, teacher, course code number, number of sections being taught, number of boys per section, number of girls per section, total number of students in each section, number of days a week class meets, length of period in minutes, and enrollment by grade 7-12. The statistical analysis is as reliable and valid as the individual county's interpretation of the instructions for reporting data.

The reader should note that the organizational pattern of the secondary level (7-12) is based on course enrollment and grade level, whereas, the elementary is organized on the grade and classroom enrollment, thus, the data in this report reflect health education course enrollment.

The **Health Class Offering Study** data were available and computed in 41 of 55 counties (74.5% total of the enrollment). The total school enrollment in grades 7-12 for these 41 counties was 155,165. Of the 41 counties reporting, 11.9% of the 7-12 student population was involved in some type of formal health instruction.

The range of the student involvement per grade level for all of the 41 counties was from 1.9% at the 11th grade level (the least involvement) to 24.9% at the 9th grade level (the most involvement). A ranking of the grade levels according to percentage of involvement on a statewide basis would be as follows: 9th, 7th, 8th, 10th, 12th, and 11th.

Of the 41 counties, the county with the highest percentage of student involvement in health instruction has a percentage of 35.3%. The county with the lowest percentage of involvement had .2% of the 7-12 student body enrolled in health courses. The other 39 counties fell somewhere between .2% and 35.3%. Of the 41 counties listed, 26 had a percentage of involvement figure of less than the 11.9% statewide average. (McFarlane, 1975).

This low level of student involvement in health education class offering led to the emergence of another question, "What knowledge do West Virginia students have of health, their own health behavior and what is the course content of these offerings?"

B) **Health Education Assessment Survey**

Additional data were derived from a health education assessment conducted in April, 1975, by the Bureau of Planning, Research and Evaluation, West Virginia Department of Education. From this study information regarding the health instruction and health services of a random sampling of junior and senior high schools was obtained. The sample simply was not large enough, thus making conclusions drawn from the sample unreliable. The initial survey work was not intended to be the final effort at data collection, rather it was to be used in defining further assessment interests. (Note Appendix C for Survey Questionnaire).

The data from this instrument on the health service personnel showed only seven fulltime professionals employed by the selected sampling of 35 schools: one school psychologist, two school nurses, and four speech hygienists (therapists).

Many schools indicated part-time help was available in at least one of the ten areas of health service: psychiatrist, school psychologist, psychometrist, physician (other than psychiatrist), nurse, dental hygienist, speech therapist, physical therapist, and other health services.

Even given these limitations, there were some interesting trends, particularly in health content, which gave implications for the sequential studies. Section 1 on the teachers' and Section 4 on the principals' questionnaires dealt with the desirable degree of emphasis on the 11 content areas of health education. The three highest percentage content areas indicated by principals as worthwhile of receiving a high degree of emphasis at the junior high level were:

1. disease prevention and control
2. first aid
3. family life

Somewhat similar opinions were held by the teachers in the survey. At the junior high level the highest percentage of teachers ranked content areas as follows:

1. disease prevention and control
2. first aid
   family life
3. community health

At the senior high, teachers indicated that the following were worthy of a high degree of emphasis:

1. disease prevention and control
2. family life
3. harmful substances

On the same questionnaire, the two content areas that the greater percentage of both principals and teachers ranked lowest in degree of emphasis were:

1. consumer health
2. health career

This was true at both the junior and senior high levels when percentages were combined.

Teachers were also asked to indicate from among selected-teaching problems those which gave the teacher a high degree of difficulty. At the senior high level some problem areas were:

- Arranging and conducting field trips.
- Interpreting health education to the lay public.
- Keeping up with advances in health education.

At the junior high level concerns were:

- Securing an adequate textbook.
- Arranging and conducting field trips.
- Supplying supplementary materials.

This survey provided initial input from principals and teachers for the assessment design. Since the data sampling was not large enough to be representative of secondary schools in West Virginia, this survey has limited implications.

C) **Statewide Health Knowledge Assessment**

The statewide assessment of senior high school students' general knowledge and understanding of health involved the administration of the Health Behavior Inventory in a sampling of 25 eleventh graders from each of the 30 different high schools. A total of 750 subjects yielded 729 useable answer sheets. The schools represent a stratified random sample based on school population of West Virginia high schools. Students were selected randomly from the eleventh grade in participating schools. Appendix D identifies the particular schools and presents a statistical description of the sample.

The instrument selected for use in the West Virginia Health Education Project was the *Health Behavior Inventory*-Senior High Level, a standardized inventory published by California Test Bureau/McGraw-Hill, Del Monte Research Park, Monterey, California. The inventory is designed to evaluate the status of health knowledge of an individual.

The Senior High Level is composed of 75 multiple-choice items, presented in problem situation format. Content areas of the *Health Behavior Inventory* include Nutrition; Personal Health; Community Health; Family Health; Mental Health; Infection and Disease; Dental Health; Exercise, Rest and Recreation; Safety and First Aid; and Drinking, Smoking and Narcotics.

While the project director recognized some limitations in using an instrument developed and normed in the 1960's, the *Health Behavior Inventory* was selected because it was the only standardized instrument available which was designed for use with senior high school students.

Results of 729 students' score sheets used in the health knowledge assessment indicate that 82% of the males tested on a national level scored better than the average West Virginia male, and 86% of the females tested nationally scored better than the average West Virginia female.

Table 1 reveals that out of 75 test items, the average number of correct responses (mean) for West Virginia males was 42 while the national mean for males was 52. West Virginia females had a mean of 48 with the national mean being 56.

The national percentile ranking based upon mean test scores for West Virginia males is 18 and West Virginia females is 14. (See Table 1).

The range of raw scores for West Virginia males was from 8 to 65 while West Virginia females ranged from 13 to 65. Within this range, 14 West Virginia males and 26 West Virginia females had raw scores in the 1st percentile with none scoring in the 99th percentile and two scoring in the 98th percentile. Appendix E contains the raw score frequency distribution of both males and females.

In general, students from larger high schools scored higher in preferred responses than those from medium and small schools. (See Appendix F for the tabular findings of each school according to size grouping. Larger school population, Table B, is 314 or more eleventh grade students; medium, Table C, is 155 to 313; and smaller, Table D, is less than 155.)

Figure 1 is a comparison of West Virginia males and females in the percent of preferred responses in each content area. Figure 2 is a comparison of national and West Virginia males, and Figure 3 is a comparison of national and West Virginia females.

Table I

Mean, standard deviation, and national percentile of West Virginia eleventh grade students by sex

	Number of Subjects	Number of Test Items	Raw Score Mean	Standard Deviation	National Percentile by sex*
Males	350	75	42.04	11.71	18
Females	379	75	48.04	8.91	14

*Percentile based on national norms provided in test manual.

Observing the data, it appears that:

- West Virginia students are consistently below the students nationally in each content area in selecting preferred responses.
- West Virginia students generally followed the patterns of the national norms. For example, in the national norms the highest percentage of preferred response for females was in smoking, drinking and narcotics at 86% and the lowest in nutrition at 58%. The pattern was repeated for West Virginia females in giving preferred response in smoking, drinking and narcotics with 81.2% and the lowest in nutrition 47.3%. (Figure 3).
- West Virginia females scored higher in percentage of preferred response in each content area than West Virginia males. (Figure 1)
- West Virginia males' percentage of preferred response range was from a high of 68.8 to a low of 41.5 as compared to national males range of 85 to 50. (Figure 2). In comparing preferred response in content areas of this instrument, West Virginia males scored:
  - 10% to 16% below national males in four content areas.
  - 16% below national males in content area of drinking, smoking, and narcotics.
  - 12% below in dental health
  - 11% below in family health
  - 10% below in community health

West Virginia females scored below national females by:

- 18% in community health
- 11% in family health and nutrition
- 10% in mental health

Table 2 denotes the mean, standard deviation, and percent of preferred response in the ten content areas of West Virginia eleventh grade students by sex.

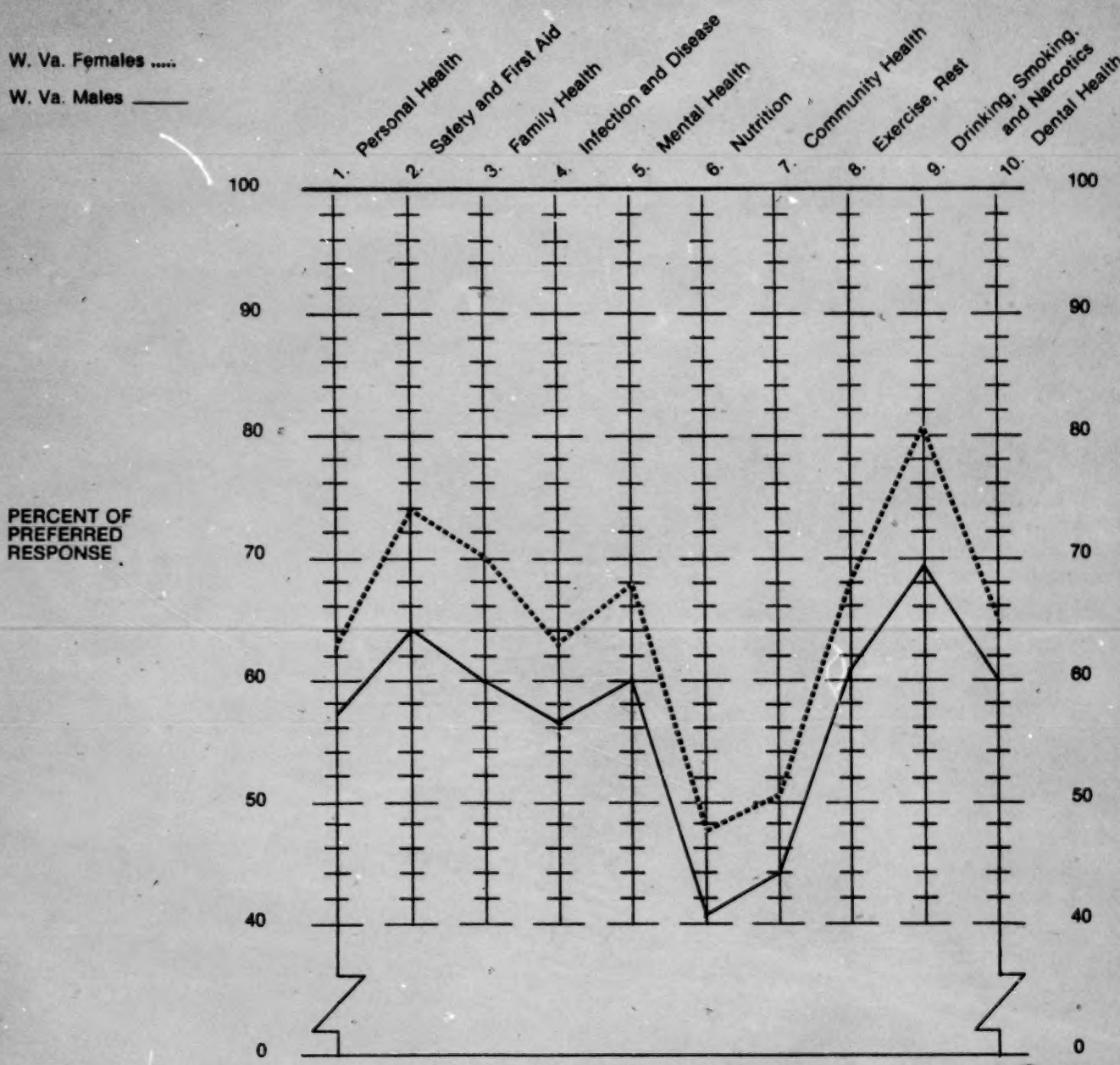


Figure I. Health Behavior Inventory Profile: Comparison of W. Va. Males and Females

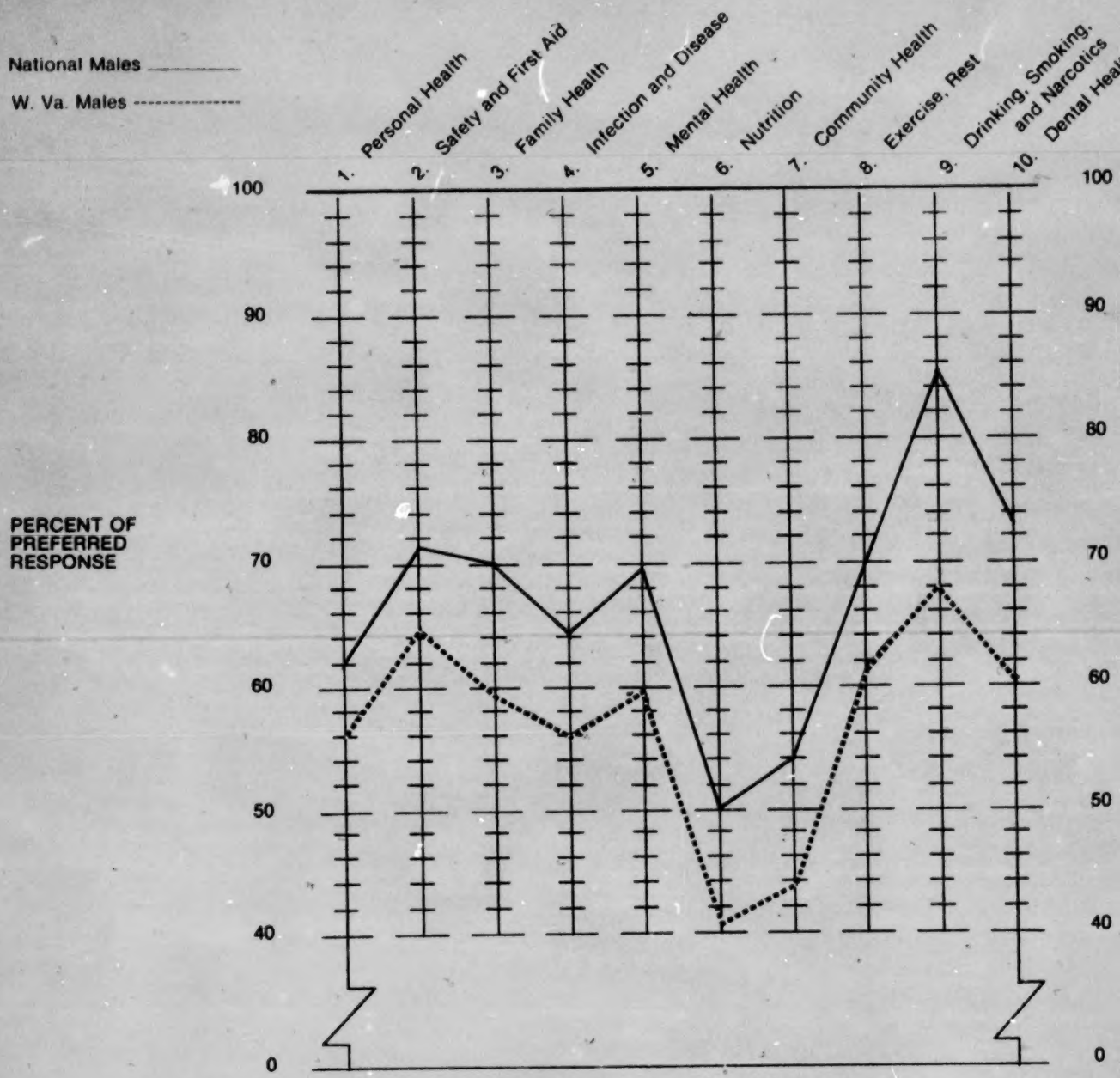


Figure 2. Health Behavior Inventory Profile: Comparison of National and W. Va. Males

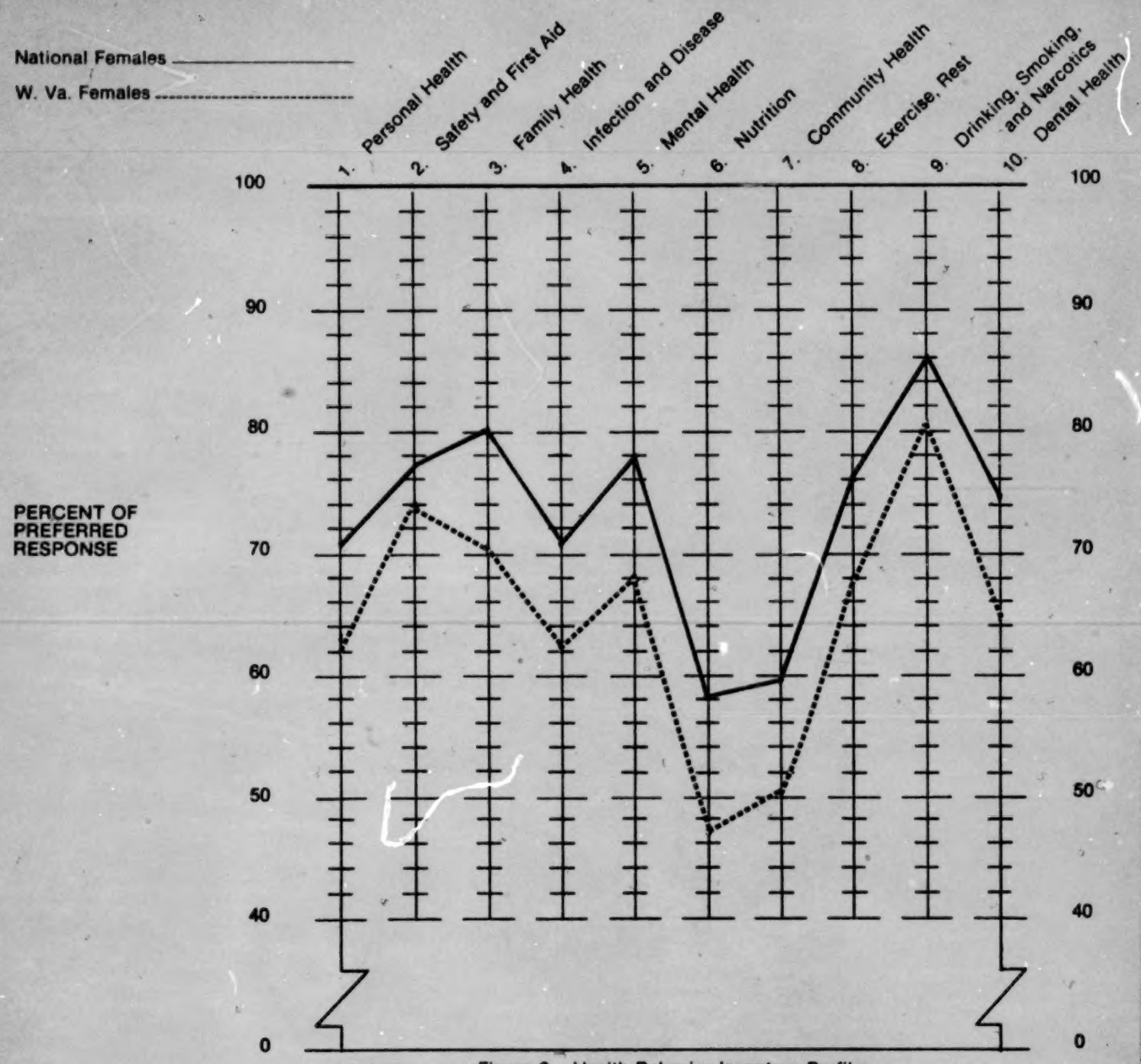


Figure 3. Health Behavior Inventory Profile: Comparison of National and W. Va. Females

Table 2

Mean, standard deviation, and percent of preferred response in content area of West Virginia eleventh grade students by sex

Content Area	Males (N=350)				Females (N=379)			
	Number of Test Items	Mean	Standard Deviation	Percent of Preferred Response	Number of Test Items	Mean	Standard Deviation	Percent of Preferred Response
Personal Health	12	6.71	2.08	55.9	12	7.55	1.75	62.9
Safety and First Aid	9	5.80	2.15	64.4	9	6.66	1.70	74.0
Family Health	9	5.34	2.04	59.3	9	6.35	1.76	70.6
Infection and Disease	16	9.06	3.24	56.6	16	10.07	2.57	62.9
Mental Health	8	4.75	1.73	59.4	8	5.44	1.40	68.0
Nutrition	6	2.49	1.25	41.5	6	2.84	1.24	47.3
Community Health	11	4.78	2.11	43.5	11	5.53	1.72	50.3
Exercise, Rest	7	4.34	1.70	62.0	7	4.80	1.41	68.6
Drinking, Smoking, and Narcotics	6	4.13	1.76	68.8	6	4.87	1.18	81.2
Dental Health	4	2.41	0.94	60.3	4	2.63	0.80	65.8

D) Comprehensive School Health Education Case Studies

The fourth study of school health education programs was for the purpose of developing a descriptive profile of one of three schools selected. The procedure was to pilot test the developed criteria and instruments which could be used to assist individual schools and county systems in assessing their own programs.

The study focused on a brief description of the schools' health education program compiled from a review of program goals, objectives, activities, interviews, and observations conducted during an on-site visitation of three high schools. An assessment of the eleventh grade students' knowledge was conducted by utilizing the Health Behavior Inventory. Students' health interests were measured by the Health Interest Inventory and the students' health needs as perceived by faculty and the parents of the eleventh grade students were measured by the Health Needs Inventory.

The selection of the three sites was a joint decision of the State Department of Education personnel and Appalachia Educational Laboratory personnel. The following criteria were utilized:

- Size of the high school (based upon eleventh grade enrollment).
- Geographical representation.
- School systems which had participated in the statewide assessment of eleventh grade students' health knowledge were not considered.
- Willingness on the part of the school to participate.

There is no claim that the sites are representative of other schools or health programs in West Virginia.

The profiles of Site A (smaller school), Site B (medium), and Site C (larger) based on eleventh grade student population included:

1. description of the schools' health education program.
2. students' general knowledge and interest.
3. perception of student needs by faculty and parents.

Data were collected using both paper and pencil inventories and personal interviews.

Two one-day visits were scheduled for Sites A and B with a one-day visit for Site C. The first visit involved administering the Health Behavior Inventory and Health Interest Inventory to all eleventh grade students present that day and distributing Health Needs Inventory to the faculty and parents. (See Appendix G and H for Interest/Needs Inventory Instruments.) The Health Interest/Needs Inventory was modified from Ramsdell's 1970 dissertation, *An Analysis of Health Interest and Needs of West Virginia High School Students*. (Ramsdell, 1970)

The second visit was to interview the principal, health service personnel, and health teachers. Also they completed the Health Education Goals Survey, Health Education Survey, and Health Curriculum Survey. (See Appendix I-J-K respectfully for instruments.)

The purpose of the study was to meet the project objective of implementing an assessment procedure for yielding a profile report which provides input for decision makers to modify or develop a school health education program.

The data from one site (Site A) is reported in this section to demonstrate how this information could be used to assess health education at the local level.

Site A was selected for this profile report because of:

1. A high degree of participation in the data collection from 11th grade students and parents.
2. The inclusion of a required health education course within the curriculum.

Descriptive Profile of Site A

The general appearance of the school was attractive, clean, and the atmosphere was pleasant and cordial. The visit was scheduled at about the most hectic time of the year due to final school year activities and preparations for next year.

The cooperation of all school personnel was received and the guidance counselors assisted with the on-site coordination of scheduling the testing and interviews. The impression was an organized and friendly environment.

The school, Site A, has a published handbook for students, parents, faculty, and principals which includes organization procedures, policies, school philosophy, sports events, and school calendar. The school has a handbook for teachers containing absence procedures, policies, organization meetings, time schedule of school day, and teachers' school calendar.

Interviews were conducted with key health personnel, principals, and health teachers. Information collected was:

- classroom activities including guest speakers, audio-visual materials available, health related activities in which school and students participated, instructional materials, scheduling of classes, and concerns regarding need for modification of program.

The course scheduling was done by the guidance counselor and the principal. Health and physical education were scheduled as one course with separation of boys and girls. Two teachers conduct health instruction twice a week in a classroom separate from the gymnasium. There was not a specific health instruction classroom. Each class was taught by the same teacher in different rooms. This necessitates constant movement of teaching materials.

The textbook used was *Tune Into Health*, a paperback by Joseph P. Felice and Patrick J. Carolon (CEBCO Standard Publishing, New York, N.Y., 1974) and *The Benton 20th Century Workbook for Health Education in High School*, by Gale Smith and Ardis Sanders (Hayes School Publishing Company, Wilkinsburg, Pa., 1972). There is a textbook and workbook for every student.

The class size varied slightly with the average being approximately 25. The course content was basically structured around the textbook and the utilization of guest speakers and audio-visual materials.

Inquiry into health related activities included representation on the County Health Planning Council, involvement with different service agencies, the Health Department, the Welfare Department, the Rehabilitation Agency, the Adolescent Parenting Program, and an institution of higher education.

The results of the profile data collected are presented in the following sequence:

- *Health Behavior Inventory*
- *Health Interest Inventory*
- *Health Needs Inventory*
- *Health Education Goals Survey*
- *Health Instruction Survey*
- *Ideal Health Curriculum Survey*
- *Findings and Summary*

Health Behavior Inventory

The percentile score of eleventh grade students at Site A was similar to that obtained in West Virginia as a whole. (See Table 3).

- Site A males are in the 18th percentile and West Virginia males are in the 18th percentile of the national norms for males.
- Site A females are in the 12th percentile and West Virginia females are in the 14th percentile of the national norms for females.
- The students of Site A ranked highest in health knowledge related to smoking, drinking, and narcotics and low in nutrition which followed the pattern of West Virginia students in general.
- The females of Site A did score less than the males in content area of nutrition, females 40.0 and males 43.3. (See Table 4).
- There were several percentile differences in the content areas of Site A compared with state students, but the overall averages were similar.

On the statewide Health Behavior Inventory assessment, generally females more often selected the preferred responses than males which remained the same for this site. The mean score for nutrition was the exception at Site A. (See Figure 4).

Table 3

HEALTH BEHAVIOR INVENTORY

Mean, standard deviation, and national percentile of Site A eleventh grade students by sex

Sex	Number of Subjects	Number of Test Items	Mean	Standard Deviation	Percentile*
Males	41	75	41.95	13.54	18
Females	39	75	47.07	11.29	12

*Percentile based on national Norms

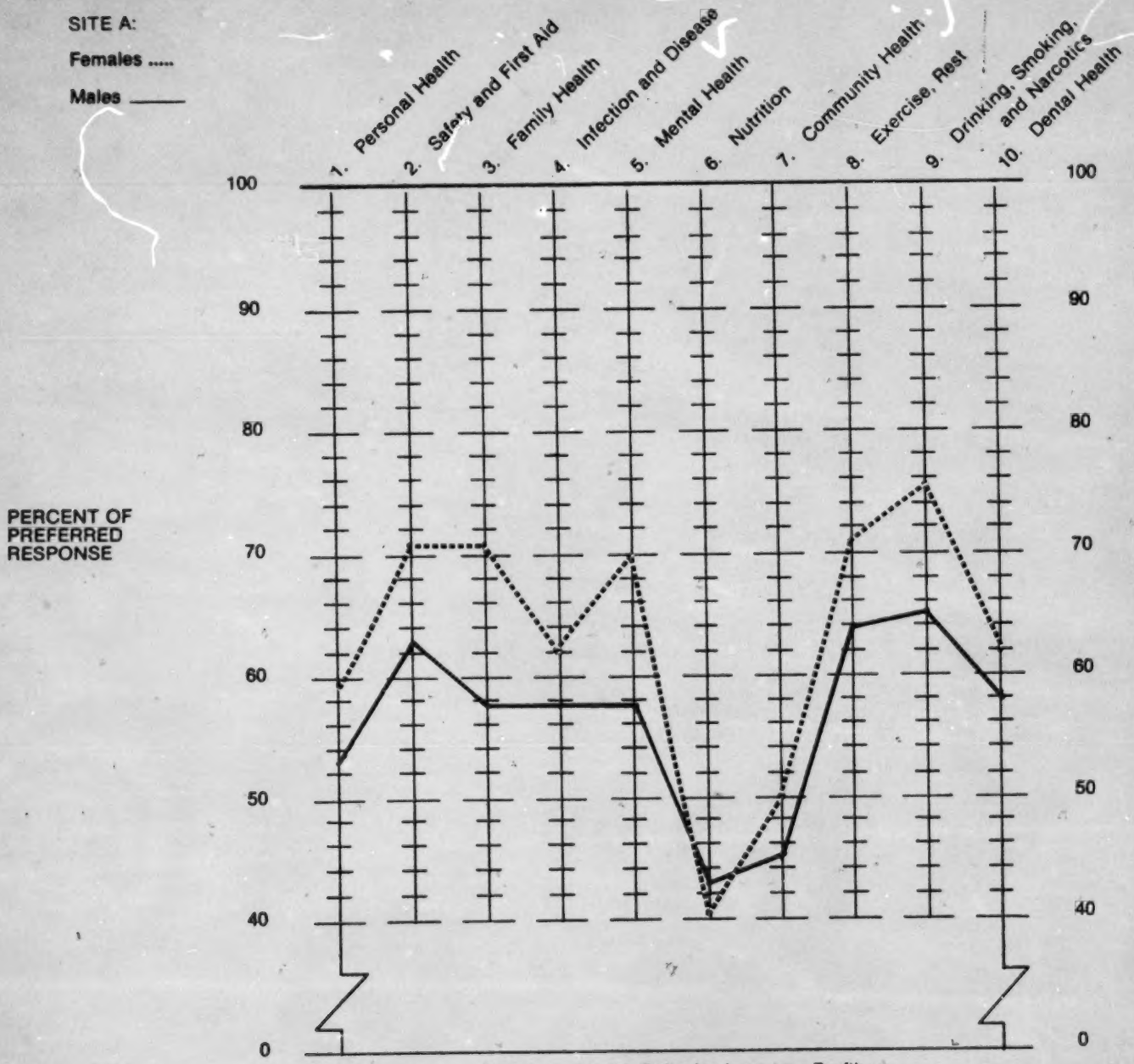


Figure 4. Health Behavior Inventory Profile: Comparison of Males and Females in Site A

Table 4

Health Behavior Inventory

Mean, standard deviation, and percent of preferred response in content area of Site A eleventh grade students by sex

Content Areas and Number of Items		MALES (N=41)			FEMALES (N=39)		
		Mean	Standard Deviation	Percent of Preferred Response	Mean	Standard Deviation	Percent of Preferred Response
Personal Health	12	6.46	2.12	53.8	7.15	2.27	59.6
Safety and First Aid	9	5.73	2.41	63.6	6.41	2.00	71.2
Family Health	9	5.21	2.07	57.8	6.43	1.93	71.4
Infection and Disease	16	9.14	3.60	57.1	10.00	3.07	62.5
Mental Health	8	4.56	1.70	57.0	5.61	1.49	70.1
Nutrition	6	2.60	0.91	43.3	2.41	1.09	40.1
Community Health	11	5.02	2.46	45.6	5.51	1.87	50.1
Exercise, Rest and Recreation	7	4.53	1.73	64.7	5.02	1.51	71.7
Drinking, Smoking and Narcotics	6	3.90	1.98	65.0	4.53	1.65	75.5
Dental Health	4	2.34	0.99	58.5	2.61	0.78	62.3

Health Interest Inventory

The instrument was administered to all Site A eleventh grade students. The students were to indicate interest by rating (1.0) no interest, (2.0) low interest, (3.0) medium interest, or (4.0) high interest.

The questionnaire (Appendix G) contained 11 content areas which were: (1) family health, (2) control and prevention of disease, (3) drugs, alcohol and smoking, (4) safety education, (5) mental health, (6) personal grooming, (7) weight control, (8) nutrition, (9) structure and function of the human body, (10) community health, and (11) consumer health. The following observations were made from the results of the questionnaire.

- Females tended to have more interest in specified content areas than males. (Table 5).
- The females ranked family health as their most interested area whereas males specified safety education. (Table 6).
- Site A females' three other highest choices were: mental health, personal grooming, and weight control.
- Males ranked family health second, followed by mental health, and structure and function of the human body.
- The interest areas shared by both male and female were family health and mental health.

Those areas of least interest were:

- Female - community health, nutrition, consumer health.
- Males - drugs, alcohol and smoking, community health, nutrition, (Figure 5).

Combined ranking of both males and females indicates 1) family health as the highest interest area followed by 2) mental health and 3) safety education. Areas of low interest are 1) community health, 2) nutrition and 3) drugs, alcohol and smoking. Figure 6 also denotes the ranking of parents' and faculties' perceived needs to students interests. (See Figure 6).

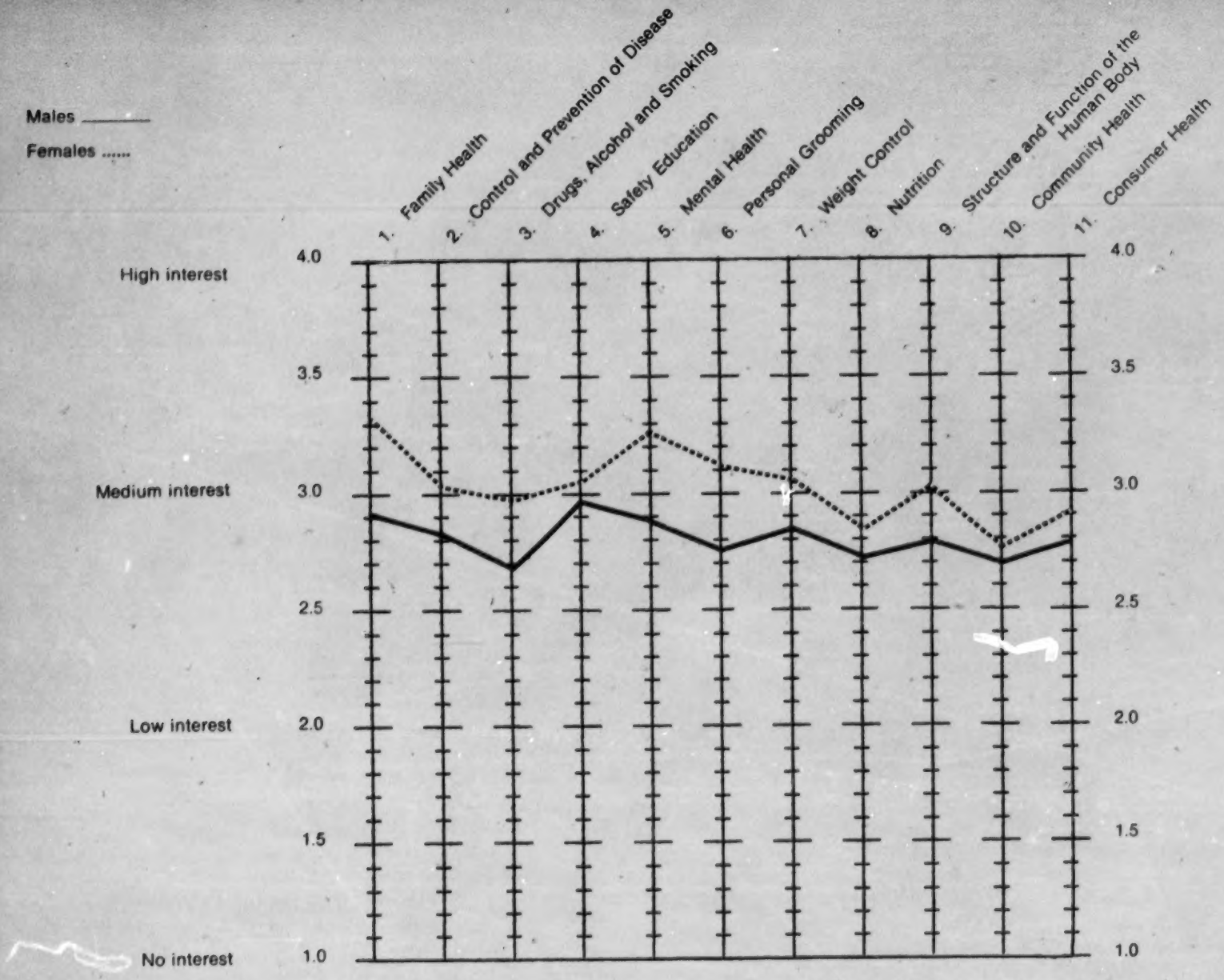


Figure 5. Student Health Interest Profile: Comparison of males and females in Site A.

Table 5

HEALTH INTEREST INVENTORY

Mean and standard deviation of Site A eleventh grade students by sex

Sex	Number of Subjects	Number of Test Items*	Mean	Standard Deviation
Males	42	98	2.80	0.47
Females	39	98	3.05	0.40

*Some items were used for more than one interest area.

Table 6

HEALTH INTEREST INVENTORY

Mean and standard deviation of Site A
eleventh grade students by interest area and sex

Interest Area	Males (N=42)			Females (N=39)		
	Number of Items*	Mean	S.D.	Number of Items*	Mean	S.D.
Family Health	10	2.93	0.49	10	3.31	0.49
Control and Prevention of Disease	10	2.84	0.59	10	3.06	0.46
Drugs, Alcohol and Smoking	10	2.69	0.51	10	2.99	0.62
Safety Education	10	2.96	0.51	10	3.05	0.47
Mental Health	10	2.88	0.50	10	3.23	0.49
Personal Grooming	10	2.73	0.48	10	3.12	0.63
Weight Control	10	2.83	0.56	10	3.08	0.49
Nutrition	10	2.71	0.51	10	2.84	0.57
Structure and Function of the Human Body	10	2.80	0.61	10	3.01	0.52
Community Health	10	2.69	0.57	10	2.75	0.58
Consumer Health	10	2.79	0.52	10	2.92	0.45

*Some items were used for more than one interest area.

Health Needs Inventory

The Health Needs Inventory was administered to parents (N=54) and faculty (N=15) at Site A. (Tables 7 and 8 respectfully). This instrument was a modification since an appropriate standard instrument was not available. The Needs Instrument is identical to the Students Interest Inventory except for demographic information and directions. Parents and faculty used the rating scale of (1.0) no interest to (4.0) high interest. (Appendix H)

Parents of eleventh grade students indicated that the three highest areas related to their children's health needs were safety education, control and prevention of disease, and mental health. Areas of least need were personal grooming, family health, and structure and function of the human body. (Table 7)

The faculty tended to perceive students' health needs as greater than parents and students. (Figure 6). Drugs, alcohol, and smoking content was considered the highest area of need. Mental health and safety education were second and third. Community health, consumer health, and structure and function of the human body were rated by the faculty as the areas of least need. (Table 8)

All four groups (parents, faculty, male and female students) identified mental health as one of the top three areas of greatest need or interest. Safety education was identified among the top three by three of the four groups. There appeared to be general consensus among those surveyed at Site A, that their highest priorities in health education are mental health and safety education. (Figure 6)

Table 7

HEALTH NEEDS INVENTORY

Mean and Standard deviation of Parents' (N=54) perception of students' needs at Site A by area

Need Area	Number of Items*	Mean	S.D.
Family Health	10	2.82	0.72
Control and Prevention of Disease	10	3.12	0.58
Drugs, Alcohol and Smoking	10	2.98	0.87
Safety Education	10	3.22	0.56
Mental Health	10	3.03	0.69
Personal Grooming	10	2.76	0.72
Weight Control	10	2.94	0.73
Nutrition	10	2.93	0.67
Structure and Function of the Human Body	10	2.92	0.71
Community Health	10	2.95	0.62
Consumer Health	10	2.95	0.62
TOTAL	98	9.95	0.58

*Some items were used for more than one need area.

Table 8

HEALTH NEEDS INVENTORY

Mean and standard deviation of Faculty's (N=15) perception of student's needs at Site A by area

Need Area	Number of Items*	Mean	S.D.
Family Health	10	3.34	0.53
Control and Prevention of Disease	10	3.33	0.50
Drugs, Alcohol and Smoking	10	3.49	0.47
Safety Education	10	3.38	0.44
Mental Health	10	3.47	0.46
Personal Grooming	10	3.21	0.46
Weight Control	10	3.37	0.53
Nutrition	10	3.25	0.53
Structure and Function of the Human Body	10	3.21	0.67
Community Health	10	3.17	0.52
Consumer Health	10	3.21	0.61
TOTAL	98	3.30	0.45

*Some items were used for more than one need area.

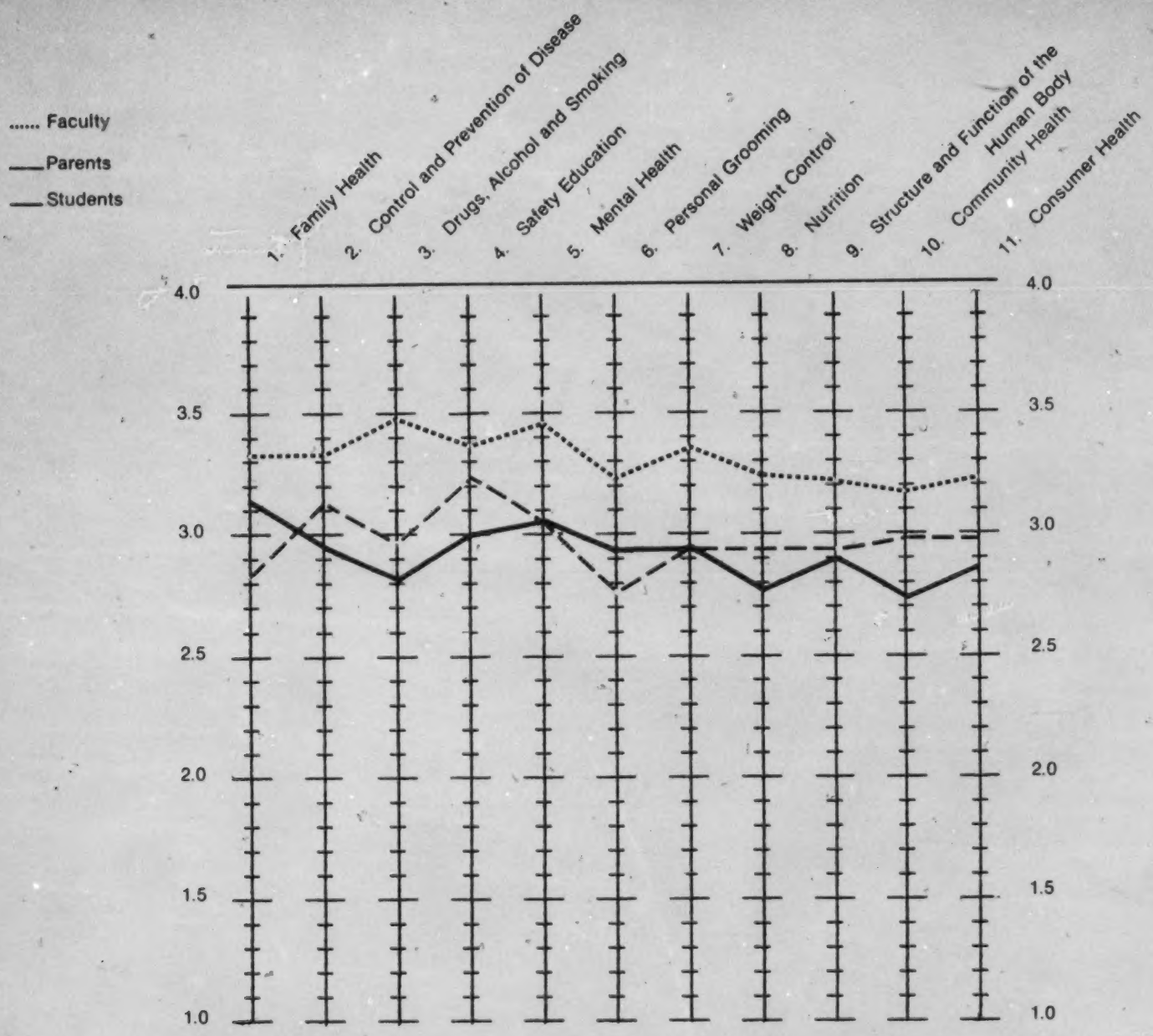


Figure 6. Health Interest/Need Inventory Profile: Comparison of students' interest with faculty and parents' perception of student needs in Site A.

Health Education Goals Survey

At this particular school, the findings of the Health Education Goals Survey, Table 4, were collected from the principal, school nurse, speech therapists, health teachers, and guidance counselors (N=7). (Note Appendix 1 for instrument.)

This instrument was used to assess the degree to which students have achieved selected health instruction goals as perceived by key health personnel. The 13 statements were to be rated as non-effective, below average, average, good, or excellent by Site A health personnel (Table 9)

Results revealed:

- the health education program was perceived as never being non-effective or excellent in achieving any of the stated goals.
- "analyze and select proper services" was identified as below average in achievement.
- "select foods that will contribute to the building of the body's organs, muscles, and tissues" was perceived as average achievement.
- "understanding the effects of alcohol, tobacco, drugs, and stimulants" was regarded as average to good in achievement.
- "discriminate between sound and poor health information" was regarded as below average to average.

Due to the range of responses from "below average" to "good" by key health personnel to the goal questions, there appears to be a need for additional communication among individuals in the school for more understanding of the school health instruction program. Further clarification or modification of goal statements may be appropriate within a specific school or county system.

Table 9

HEALTH EDUCATION GOALS SURVEY
Degree to which students in Site A have achieved selected health education goals as perceived by key health personnel (N=7)

The health education program enables the student to:	Non-Effective	Below Average	Average	Good	Excellent
Identify personal, physical, social and emotional health problems	0	2	5	0	0
Know the health services available within the community and how they function	0	3	4	0	0
Identify valid health sources and compile factual health information	0	4	2	1	0
Discriminate between sound and poor health information	0	3	4	0	0
Analyze and select proper health services	0	5	2	0	0
Recognize the importance of preventing those conditions which can be prevented	0	2	3	2	0
Understand the environment of his community and any health problems that may exist in the environment	0	3	3	1	0
Understand the effects of alcohol, tobacco, drugs and stimulants	0	0	5	2	0
Understand the causes of disease and their effect on self and community	0	3	4	0	0
Understand his role in personal and interpersonal relationships	0	3	4	0	0
Select foods that will contribute to the building of the body's organs, muscles, and tissues	0	1	6	0	0
Understand the structure, function, and development of the body	0	2	2	3	0
Develop a responsibility for personal and community health	0	3	4	0	0

Health Instruction Survey

Key health personnel (N=7) were requested to complete the Health Instruction Survey (Appendix J). This instrument was for collecting data of what personnel perceived as hindrances to the health instructional program. The scale was ranked from not a hindrance, slight hindrance, definite hindrance, to major hindrance.

Only three of the 11 statements received rating of definite hindrance to major hindrance. These were:

- "corporation does not have a health education supervisor" was perceived as "slight to definite hindrance" (six of the seven responses).
- "too many subjects are demanding top priority in school scheduling time" was regarded as "definite to major hindrance" (six of the seven responses).
- "corporation does not provide enough health education supportive services" was slight (four responses), to definite (2 responses), to major (1) hindrances. (See Table 10).

Recognition of these hindrances is an initial step which could then suggest solutions in identifying problems. The "crowded schedule" regarded as a hindrance is not as serious as in other schools since Site A does have two years of health instruction scheduled.

Although this school does have required health instruction, the instrument could be more useful for other schools in analyzing their school health programs. Other hindrances may be more evident, thus necessitating a revision of this questionnaire by a school or county system.

This instrument and data could be a useful mechanism in a group discussion for defining problems and seeking solutions.

Table 10

HEALTH INSTRUCTION SURVEY

Hindrances to the health instructional program as perceived by key health personnel (N=7) at Site A

Problem	No Response	Not A Hindrance	Slight Hindrance	Definite Hindrance	Major Hindrance
Corporation does not have a health education supervisor		1	4	2	
Classroom teacher feels inadequately prepared (content and materials) to teach health		3	1	2	1
Health education contains too many sensitive, controversial topics		2	3	1	1
Corporation does not provide enough health education supportive services			4	2	1
Corporation does not offer enough health education inservice programs for teachers		1	5		1
Inadequate support and service from state-level agencies		1	4	1	1
Schools are unable to secure certified health teachers	1	4		1	1
Too many subjects are demanding top priority in school scheduling time			1	4	2
Up-to-date health education materials are not available	1	1	3	1	1
Appropriate text materials are not provided	1	2	2	1	1
State curriculum guides for health instruction are not available	3	1	2	1	

Ideal Health Curriculum Survey

The Health Curriculum Survey was administered to the key health personnel of Site A. Each was to "indicate the percentage of time you feel should be devoted to each content area in an ideal program." The percentage of all 11 content areas plus "other" should total 100%. (See Appendix K for instrument).

The Ideal Health Curriculum Profile (Figure 7) shows the ideal percentage of time which should be allotted for each of the 12 content areas as perceived by key health personnel (N=7).

The content area which was perceived to be allotted the highest percentage of time (14%) is structure and function of the human body. The second and third areas for percentage of time were drugs, alcohol and smoking, then safety education. These three issues are marked for 35% of the health instruction content.

Weight control is less than 5% and personal grooming is just over 5% for areas receiving the least amount of time.

The section identified as "other" ranked 10th in sequence of percentage of time, but no specifics were recorded.

It is interesting to note the differences of the Health Needs Inventory (Table 7) completed by faculty, and Health Curriculum Profile, completed by key health personnel. The faculty indicated the need in area of drugs, alcohol, and smoking whereas the key health personnel indicated structure and function of the human body to be allotted the largest amount of time.

This survey seems to indicate that key health personnel tend to view health instruction as physical health. Little time was indicated for issues concerned with the individual and his/her relationship to environment and others.

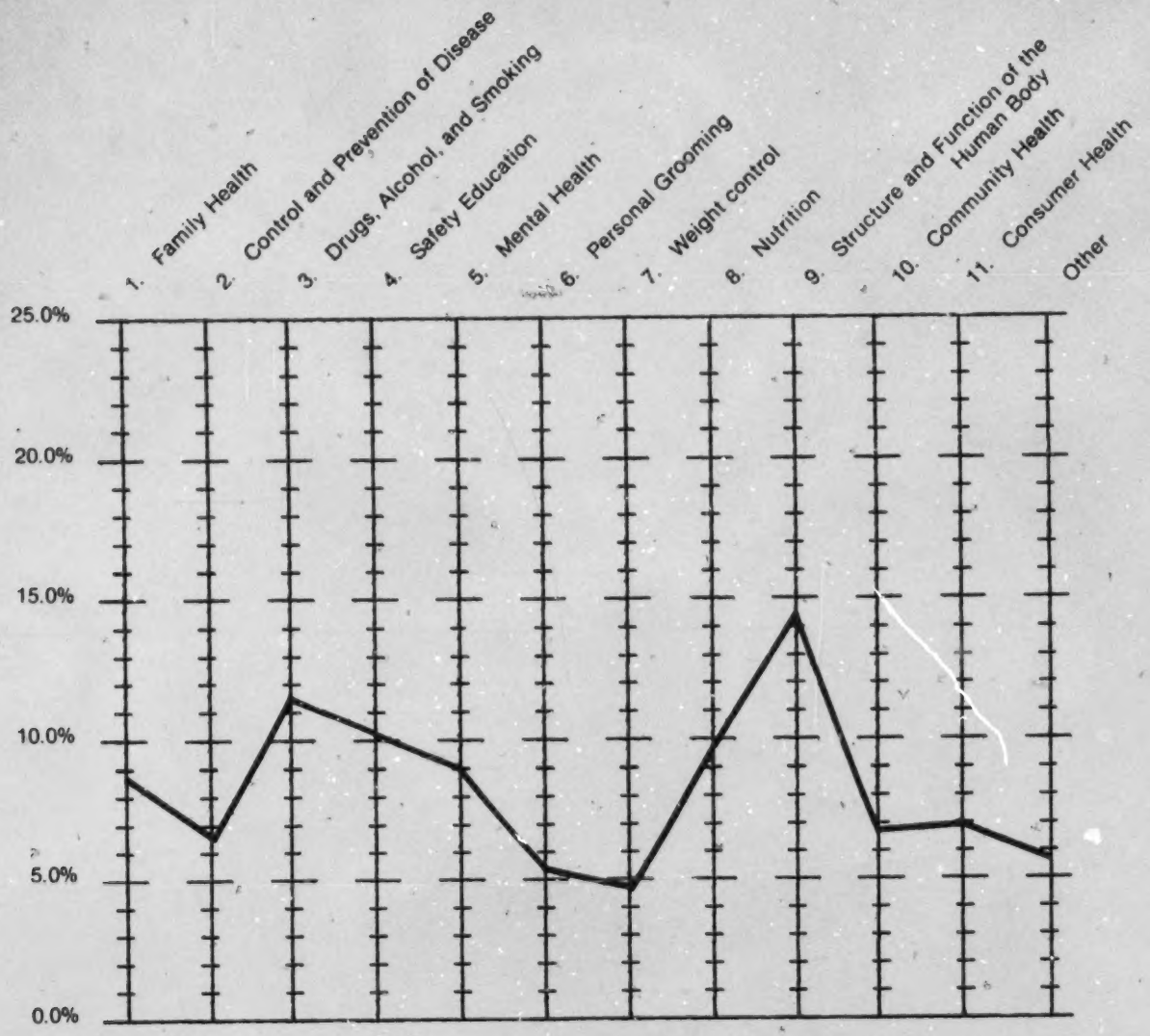


Figure 7. Ideal Health Curriculum Profile: Perception of key health personnel (N=7) at Site A

Summary of Site A

Seven data gathering instruments were administered to students, faculty, school health personnel, and parents of Site A.

The instruments and the findings of each are as follows:

Health Behavior Inventory (HBI) is an instrument for measuring students' general knowledge and understanding of health.

- eleventh grade males and females at Site A school are at the 18th and 12th percentile of national norms.
- eleventh grade females are two percentiles below the West Virginia female norm.
- eleventh grade males scored at the same level as the West Virginia male norm.
- Site A students scored lowest in the area of nutrition.
- males of Site A scored higher in preferred response than West Virginia males in content areas of infection and disease, nutrition, community health, and rest and exercise.
- females of Site A scored higher than West Virginia females in preferred response percentile in content areas of family health, mental health and exercise, rest and recreation.
- Site A raw scores mean for both male and female were below state mean.

Health Interest Inventory (HII) of students was to determine interest in topical issues related to health education.

- females were more interested in all health content areas than males.
- females indicated greatest interest in areas of family health, mental health and personal grooming.
- males ranked family health, mental health, and structure and function of the human body as areas of highest interest.
- females showed less interest in community health, nutrition, and consumer health.
- health areas of least interest for males were drugs, alcohol, and smoking, community health, and nutrition.
- both males and females shared high interest in family health and mental health.

Health Needs Inventory was to assess students needs as perceived by parents and faculty.

- parents indicated child's needs were in areas of safety education, control and prevention of disease, and mental health.
- faculty perceived students' needs to be in health areas of drugs, alcohol, and smoking, mental health, and safety education.
- health areas indicated as of lesser need by faculty were community health, consumer health, and structure and function of the human body.
- parents felt areas of personal grooming, family health, and structure and function of the human body were of lesser need.

Health Education Goals Survey completed by key health personnel indicated health education goals achieved by students were:

- "select foods that will contribute to the building of the body's organs, muscles, and tissues" as average achievements.
- "understanding the effects of alcohol, tobacco, drugs, and stimulants" as average to good in achieving.

Health Instruction Survey administered to key health personnel denoted the greatest hindrances to health instructional program as:

- Too many subjects are demanding top priority in school scheduling time.
- Up-to-date health education materials are not available.
- Corporation does not have a health education supervisor.

Ideal Health Curriculum Survey assessed key health personnel feelings regarding percentage of time per content area. Their perceptions of the 12 content areas' time allotments were:

- 14% of the instruction time should be in content area of structure and function of the human body.
- the issues of drugs, alcohol, and smoking should have 12% of the time.
- safety education as a content area should have 11% of the time.
- personal grooming and weight control were less than 5% to just above 5% for time allotment.

Recommendations are:

- the health knowledge of students' needs to be improved in all content areas.
- the content areas of nutrition and community health should receive additional instruction techniques and materials.
- areas of students' interest should be utilized to approach the different content areas, i.e., using weight control to enhance knowledge and understanding in nutrition.

- a need for more emphasis in the instructional area of family health and mental health.

- there should be negotiations with parents in establishing the instructional program in all areas.

- a need to establish and communicate a philosophy and rationale for the school health instruction program, i.e., health instruction should promote the development of the total child's emotional, social, intellectual, spiritual, and physical growth.

- the need for establishing a means of organizing or modifying the school health instruction program. Such as, a school council could consist of school health personnel (instruction and service), community organizations, governmental and non-profit agencies, parents, and students. It could be a means of obtaining support funds for supplemental teaching aides, etc.

Utilizing the data from faculty, parents, students, and other school personnel, Site A can construct a pilot instruction component to include learning experiences indicated on the Health Interest Inventory such as safety education/first aid, family health, weight control, and mental health.

In viewing the Health Behavior Inventory, the subject of nutrition needs innovative and appropriate learning experiences for increasing the students' understanding. This content area could be supportive or approached through the weight control issue.

The health instruction program should address the students' needs and interest. The textbook presently in use is oriented toward disease, human anatomy and physiology. A cross reference with biology and science teachers may be necessary to reduce duplication.

The textbook has first aid, but the inclusion of cardiopulmonary recesitation and choking methods could be helpful as additional material.

Additional supplementary materials would be beneficial to enhance the social and emotional development and understanding by the student. The real concern is to integrate the health issues into self and behavior, and become aware of an individual's responsibility for his/ner own health behavior. To begin meeting this concern, learning experiences for enhancing decision-making skills in regards to self and consumer health could be added to the curriculum.

A written statement of philosophy and objectives of a school health program would initiate the conceptualizing for developing a school health program.

This step coupled with teachers and students working together to develop learning experiences, and obtaining parental approval and support would be a positive impact on students, school, and community.

The organizing of a school health council either as a committee in the curriculum committee or other established group would provide a mechanism for operation. The resources identified in the interview questionnaire would be contributors to this approach. The designation of a classroom specifically for health instruction would permit teachers to maintain materials and teaching aids in specific areas as well as to assist teachers in planning their learning activities.

Sites A, B, and C Combined

Note Appendix L for the analysis of the *Health Behavior Inventory* and *Health Interest/Needs* for the three sites. The *HI/N* is interesting in that the faculty ranked every content area higher than parents and students. The general pattern was for students to denote interest in content areas above parents' preceived needs. The content area of safety education, primarily the first aid statements (Table H), were high as interest and needs. Students generally showed interest in family and mental health areas (Tables E & I), particularly those statements geared to self, social, and emotional growth. The *Health Interest Inventory* mean and standard deviation of Sites B and C eleventh grade students by sex is tabulated in Appendix M. Also, the *Health Behavior Inventory* mean, standard deviation, and national percentile of Sites B and C eleventh grade students by sex is in Appendix N.

E) Survey of Existing Data on Health Problems of School Age Children in West Virginia

The search for existing data regarding the health symptoms of school age children in West Virginia involved contact with many state agencies and nonprofit organizations. This search found an enormous amount of statistics compiled by different departments within the State Health Department, the Welfare Department and the Mental Health Department. There is no pretense to say all areas and sources have been identified, rather, that these agencies have a more consistent program and record keeping system on a county by county basis throughout the state.

Other one-time studies conducted by institutions of higher education and private foundations were included. The data collected and summarized below are partial to the need for changes in school health programs.

Most agencies' programs are service oriented, but many include a supportive program for education. The materials for student health education available from the education components are typically cognitive. The blending of the materials into a concept with implications for the life of the student is left to the educator.

This section will not attempt to include every service, report, tabular data, and program. Rather, the focus is placed upon data which serve the purpose of the project, i.e., identifying the health and health education needs of the school age population. It is anticipated further documentation and reporting of this material will be accomplished.

The areas in which specific data relating the school age individual are available include: nutrition, venereal disease, cause of death, drugs and alcohol, marriage and divorce, pregnancy, and child neglect and abuse.

Nutrition

"Even a casual observation of children's eating habits alerts one to a need for a change of these habits" (West Virginia Department of Education, 1975). "The results of the Ten-State Nutrition Survey conducted in 1968-70 documents this need. One conclusion of the survey states that Americans make poor food choices, resulting in a high proportion of persons being malnourished or risking malnutrition." (United Stated Department of Health, Education, and Welfare, 1968-70). "Since food practices during the early years of life have an effect on an individual's capabilities as an adult (Large, 1972), there is an urgent need for nutrition education during the development years of children's lives."

"During the Ten-State Nutrition Survey, a significant proportion of West Virginia's population was found to be deficient in major nutrients. Individuals under 16 years of age had a higher rate of multiple unacceptable biochemical levels than other age group studies. The mean height of surveyed West Virginia children during the first year of life was below that of the Iowa Growth Curve and approximated a line one standard deviation below the mean. There existed a definite relationship between low income and unacceptable levels of four major nutrients (Dyer, 1970, pg. 10-13)."

"In 1974, the Manpower Report by the United States Department of Labor indicated that 31 out of 55 counties in West Virginia had six percent or more of their population substantially or persistently unemployed (USDL, MA, DPEVR, 1974). This degree of unemployment, as well as the knowledge of the number of West Virginia children eligible for free and reduced meals, helped substantiate the existent concern that nutrition education is a vital need in the state."

"Hunter (1971) reminds us, 'that man does not have an innate instinct which causes him to choose the proper foods for his body. Many studies have been conducted concerning the relationship between malnutrition and mental development.' Winick (1969) states, 'it is obvious that no precise answer exists to the question of whether malnutrition retards intellectual development. However, I think we can say that evidence from numerous sources suggests that malnutrition can cause changes within the brain, which are functionally significant and which may be manifested by faulty intellectual development. The extent of nutritional deprivation is unknown, but probably less severe than we think and the most critical time is before one year of age.' As Scrimshaw (1970) emphasizes, 'Early malnutrition, sufficient to impair growth, has repeatedly and conclusively demonstrated its effect on their (children's) subsequent learning, memory, and adaptive behavior.' "

The director of the Ten-State Nutrition Survey (Shaefer, 1970) and the director of the Nutrition Survey in Texas (McGanity, 1970) both urge the initiation of public school programs in nutrition and health. (West Virginia Department of Education, 1975)." The State Department of Education, Bureau of Federal Programs and Services, Division of School Food Services, has clearly documented the need for nutrition education in the primary and elementary schools in their report, *The Nutrition Team: An Evaluation*, 1975.

Pregnancy

This section is addressing the physical and emotional development of junior and senior high school students. Every student of this age group must be considered as a potential parent, either in the biological sense or as responsible for influencing a younger person's life in the realm of role modeling, whether the role is that of mother, father, aunt, uncle, older brother or sister, or babysitter. The interpersonal relationships being developed in this age group need not be by chance. Learning experiences should be within the school curriculum to develop these skills.

As the student is beginning social contact with members of the opposite sex and planning life goals, preparation for marriage and family are very much part of the scheme.

In viewing the data, adolescent pregnancy in West Virginia is higher than the national average. The data indicate the teenage mother is a high risk catagory for infant mortality. This section will view the data which indicate the high risk factors of adolescent pregnancy. These indicators are age of the mother, infant mortality, prenatal care and education level of the mother.

Since the younger mother is most likely to be having her first baby, we will review the West Virginia Vital Statistics Reports of October 1974, published in December 1974 and January 1975.

Of the 29,200 births recorded in 1972, there were 6,564 births occuring to mothers 10 to 19 years old or 22.5% of all births. The 20 to 29 year old mothers gave birth to 62.3% of the new borns. (Table 11).

Table 11

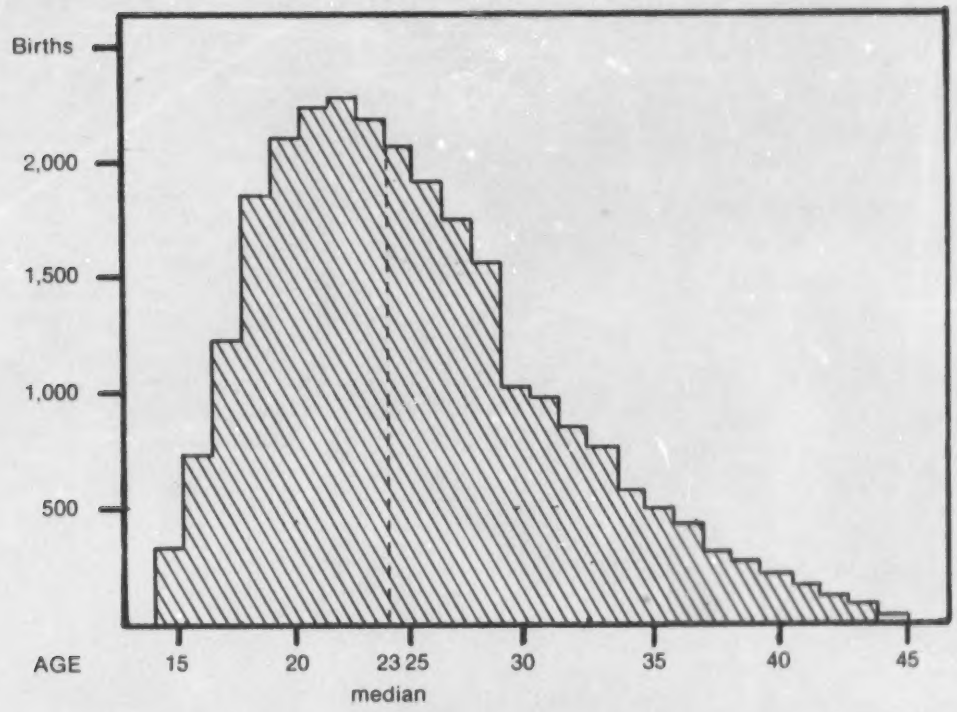
Comparing Age of the Mother with Birth

Age of Mother	Births	% of Total
10-14	89	0.3
15-19	6,475	22.2
20-24	11,471	39.3
25-29	6,706	23.0
30-34	2,828	9.7
35-39	1,262	4.3
40-44	339	1.2
45 & over	24	0.1
Unknown	6	0.0
TOTAL	29,200	

In comparing the age of the mother (10 to 19 year olds) and birth rate of West Virginians (22.5%) to the national figure (19.3%) for same age group, West Virginia is higher for 1972.

In 1973, the largest number of births in a single year of age occured to 21 year old women, but from Figure 8 we can see women in the 19, 20, and 22 year old age group were not far below the top production level set by 21 year olds. Considering the number of live births for 1973 by age of mother, we find: under 15, 64 births; 15, 273 births; 16, 792 births; 17, 1317 births; 18, 1922 births; 19, 2119 births; 20, 2190 births; and 21, 2205 births. There were 6,487 births in 19 year olds and under, with 4,393 in 20 and 21 year old range.

Figure 8.
1973 West Virginia Births by Age of Mother



Source: **Vital Statistics, 1973.** West Virginia Department of Health: Division of Vital Statistics. p. 25.

From this point we can note the mortality rate of births in West Virginia and begin realizing the high-risk factors for adolescent mothers and their infants.

A linked record cohort study for infants born alive during 1960 was made by the National Center of Health Statistics and the results published in September 1973 in "Vital and Health Statistics," Series 20, Number 14. The study found that infants "born to mothers in their teens and to mothers age 40 years and over have less chance of surviving to the first birthday than do infants born to mothers at intermediate ages."

An analysis of the 619 infant deaths (total number of recorded births and deaths filed with Division of Vital Statistics, 1972) supports the earlier findings relative to teenage mothers, although the rise in high infant mortality among births to mothers over 40 does not occur in the 1972 West Virginia figures. (Table 12).

The infant mortality rate per 1000 live births of mothers 10 to 19 years old for the 619 West Virginia infant deaths in 1972 is denoted in Table 12. The infant mortality rate is substantially higher among the younger mother.

Table 12

Infant Mortality Rate Per 1000 Live Births
by Age of Mother

Age of Mother	Rate per 1000 Live Births
10-14	44.9
15-19	27.2
20-24	20.4
25-29	18.9
30-34	18.7
35-39	16.6
40-44	11.8
47 [sic] & over	0.0
All Ages	21.2

Vital Statistics Monthly Report, September, 1974.

Another variable besides the age of the mother which affects infant mortality is the birth order. In the 1972 analysis of the 619 births, 82% of the teen-age mothers were facing their first live birth experience. (Table 13).

The first column rates of Table 13 are all birth orders considered together. The two teenage categories show the highest infant mortality rates, 44.9 for the 10 to 14 age group and 27.2 for the 15 to 19 group.

The second column gives the infant mortality rates by age of mother in those cases where the birth was the first live birth for that mother. Here, also, the mothers in the 10 to 14 age group show the highest infant mortality rate. The 20.9 rate for the 15 to 19 age group is above the overall rate for this birth order category (19.4), but is less than the rate for mothers in the 30 to 34 age group who were giving birth for the first time.

There were only six births to mothers in the 10 to 14 age group representing second live births, thus the 166.7 infant mortality rate should be viewed with caution. For second, third, and fourth order births among the 15 to 19 age group the numbers were higher (1011, 150 and 13). As can be seen from the table, the mortality rates were higher than any of those for the older groups within each birth order category.

Table 13

Infant Mortality Rate by Live Birth Order
by Age of Mother, West Virginia, 1972

	Orders	1	2	3	4	5-7	8 & Over
All Ages	21.2	19.4	21.3	22.8	23.9	26.1	16.9
10-14	44.9	36.1	166.7	-	-	-	-
15-19	27.2	20.9	50.4	80.0	76.9	-	-
20-24	20.4	18.5	19.2	22.6	37.3	44.8	-
25-29	18.9	13.6	13.2	22.0	18.2	28.9	46.5
30-34	18.7	34.7	7.6	17.8	17.1	22.7	24.8
35 & over	15.4	-	-	10.9	29.6	20.4	9.9

The high infant mortality rate for teenage mother leads the discussion to another variable, prenatal care, which contributes to this high risk category.

As we view Table 14 which indicates beginning prenatal care by legitimacy status and education of mother; the married, high school and above graduate will more likely seek prenatal care in the first trimester of pregnancy.

For white births (total of 26,424 births), education under five years, the percentage seeking prenatal care trimesters is 26.6% the first trimester (of 17 births), 40.6% the second trimester (26), 20.3% third trimester (13), and 7.8% seeking no care at all (5); education five to eight years, 41.8% (953), 38.5% (878), 14.1% (321) and 4.3% (99) with no care; education 12 years, 69.8% (8,654), 23.9% (2,956), and 4.7% (588) with 0.9% (107) having no care. These percentages and number of births do include "unknown care." For non-white births (total of 1,212 births), education under five years, percentage seeking prenatal care by trimesters is 25% (1), 75% (3), and none (no births), with none getting no care (no births); education five to eight years, 45.3% (of 24 births), 39.6% (21), 9.4 (5) with 5.7 (3) having no care; education of 12 years, 46.7% (273), 38% (222) and 11.3% (66), with 2.7% (16) having no care in the first, second, and third trimesters. "Unknown care" is not included in the percentage of number of births. (Table 14).

Table 14

Number of Resident Births by Time Prenatal Care Began, by Legitimacy Status and Education of Mother, 1974

Color, legitimacy status, and mother's education level	Total	TIME PRENATAL CARE BEGAN				
		First Trimester	Second Trimester	Third Trimester	No Care	Unknown Care
WHITE BIRTHS	26,424	16,606	7,300	1,856	409	253
Legitimate	24,368	16,013	6,449	1,414	270	222
Illegitimate	2,056	593	851	442	139	31
WHITE BIRTHS						
Under 5 years	64	17	26	13	5	3
5 - 8 years	2,281	953	878	321	99	30
9 - 11 years	7,456	3,692	2,712	795	175	82
12 years	12,391	8,654	2,956	588	107	86
13 - 15 years	2,387	1,806	463	83	14	21
16 or more years	1,701	1,409	229	41	4	18
Unknown	144	75	36	15	5	13
NON-WHITE BIRTHS	1,212	556	461	142	43	10
Legitimate	714	390	251	58	10	5
Illegitimate	498	166	210	84	33	5
NON-WHITE BIRTHS						
Under 5 years	4	1	3	-	-	-
5 - 8 years	53	24	21	5	3	-
9 - 11 years	335	130	135	49	19	2
12 years	584	273	222	66	16	7
13 - 15 years	123	57	53	10	2	1
16 or more years	102	65	24	12	1	-
Unknown	11	6	3	-	2	-

The high-risk factors of teenage mothers have been noted, now what is the role of the school? Would it not be fair for the school to assume "practically every student in junior and senior high school is a potential parent," thus begin preparing them for that phase of adulthood.

The need for health care for the unborn child and mother is a reason for learning how to obtain and use the health care delivery system.

Another important aspect of maturation other than the physical, is the emotional, which Alyce Gullatee, M.D., assistant professor of psychiatry, Howard University School of Medicine, in her presentation at the National PTA and March of Dimes Parenting Conference (1976) was, "Parenting is obviously more than a biological event or a physiological exercise. Far more significantly is the process of being a responsible parent which is loving, practicing, understanding, sympathizing, and providing for the child or for the children. In this sense parenting becomes an awesome moral and legal obligation not to be lightly assumed or casually dismissed."

Loving, practicing, understanding, sympathizing, and providing are behaviors which relate to other phases of one's life, not just for child-bearing and childrearing, and can be enhanced through learning.

Marriage and Divorce

An area of decision making for the school age individual with regards to self and relationships with others is marriage and divorce.

In reviewing the statistics of Teenage Marriages, Divorces, Parenthood, and Mortality (USDHEW, 1974) the number of West Virginia teenage marriages was 6,610 in 1969 and the West Virginia Department of Health (1974) shows 3,136 divorces with the same age group for marriage duration of 1-5 years.

The West Virginia Department of Health: Division of Vital Statistics states that 8,063 of the 17,409 marriages (46.3% of the marriages in West Virginia in 1974) involved at least one individual from the 10-19 age group. The same document shows of the divorce and annulments which totaled 7,176 in 1974, 554 were females 19 years of age and younger (9% of all divorced females). (Table 15 and 16).

A large number of marriages and divorces in West Virginia are of the teenage group. The findings indicate that many teenagers are getting married before the age of 20 and there is a high probability the marriage will not last.

This issue concerns more than marriage or whether schools should teach about marriage, rather the issue is the importance of learning about relationships and interaction with others. Marriage is a relationship, young people are marrying and divorcing at an early age and health instruction should address the issue.

Table 15

Marriages by Age of Bride and Groom, 1974

Bride	Total	Groom	
		10-14	15-19
Total	17,409 10-60+	1	3,473
10 - 14	55	-	35
15 - 19	7,58	1	3,013

Source:
Vital Statistics, 1974. West Virginia Department of Health: Division of Vital Statistics, p. 92.

Table 16

Divorces and Annulments by Age of Husband and by Age of Wife, 1974

Total	Total	Age of Husband	
		10-14	15-19
Total	7,176 10-60+	1	123
Age of Wife			
10 - 14	1	-	-
15 - 19	553	1	105

Source:
Vital Statistics, 1974. West Virginia Department of Health: Division of Vital Statistics, p. 95.

Venereal Disease

Another disease which is a symptom of health behavior is venereal disease. Although state statistics were not available, Tables 17, 18, and 19 indicate the continuous increase of reported cased of gonorrhea and syphillis in the United States during 1973-74. (Also note Appendix O, Tables Y and W).

Ronald G. Bryant (1976), director of V. D. Control, Health Department, reports "In fact, for gonorrhea alone, it is reported for the year 1975 that 33% of all cases in West Virginia occurred in the age range of 15 to 19. This age group represents only five percent of the state's population."

Walter Morgan, M.D., M.P.H. (1974) notes several problems in controlling venereal disease,

"Control efforts aim at two directions--early diagnosis and treatment and discovery of contacts through interviews. Most of the public health education efforts, through mass media, public schools, etc., have attempted to inform young people of the symptoms and the hazards and to urge them to seek early medical attention. Many problems inhibit this effort:

1. Young people rarely have a regular source of medical care or don't know how to seek services.

2. Young people, especially teenagers, have no funds to pay for care and fear the costs.

3. Stigma of V.D. is still very high, and the disease is still mostly an embarassment to the victim if not causing outright shame and guilt. This inhibits use of even the most anonymous physicians and prevents use of the family physician and any consultation with parents or parent figures who guide them in other health matters. This is, of course, tied to taboos regarding sexual intercourse itself. The disclosure of V.D. means recognition of sexual activity which may be even more negatively received.

4. Fear of disclosure and reprisal is linked to this stigma, again, especially among teenagers but among others too. People feel their parents, spouses, teachers, etc., will be told by the health authorities and that punishment and shaming will ensue. Considerable effort to change state laws to enable physicians to treat minors for V.D. without parental consent (W.Va. 1971) have aimed at this problem, but the law says the M.D. doesn't have to inform the parents--it doesn't say he can't or won't. Fear of disclosure is well-founded of course. Identification of sexual contacts and getting them in for tests and/or treatment is vital to control the disease. Whether (Public) health people who talk to the named contacts disclose where they got their information or not--their approach usually is not -- it is most often obvious. The patient may be apprehensive about 'ratting' on his/her friend and subsequent angry reactions. There may be ambivalence here, as the patient may already be upset that the person he/she got the disease from had other sexual partners.

5. Public health clinics are notoriously unpleasant places. Personnel with hostile attitudes are added to austere, old and/or dirty surroundings. In some municipal clinics, police parade manacled prostitutes through the waiting room, which already has its share of rough-looking characters (as well as possibly some of the prospective patient's friends)

6. Shots hurt and so do blood tests.

7. The symptoms probably will go away or are not bothersome enough to seek help." (Morgan, 1974.)

Although venereal disease crosses age groups, an immediate need goes beyond "just cure of V.D." rather the importance of utilizing the health system and medical assistance. Learning experiences must be directed to functioning with the system not the system functioning the individual.

Dr. Morgan has pointed out several problems in reporting and obtaining treatment for V.D. The role of the school health program can influence many of the issues:

1) learning to utilize the health system

2) alternative means of seeking treatment

3) provide information about the disease

4) provide learning experiences in decision-making regarding health and behavior.

The knowledge and understanding of using health services should not be learned when one is ill and needs services, but rather how to use the services before being caught in the system.

Table 17

Newly Reported Cases of Venereal Disease in Civilians by Age and Sex, United States, 1973-1974*

Gonorrhea 1973 and 1974

Age Group	Male		Female		Total	
	1973	1974	1973	1974	1973	1974
	Cases	Cases	Cases	Cases	Cases	Cases
0-14	2,911	3,061	7,903	8,449	10,814	11,510
15-19	108,221	111,273	124,773	137,484	232,994	248,757
TOTAL	111,132	114,334	132,676	145,933	243,808	260,267

Table 18

Primary and Secondary Syphilis 1973 and 1974

Age Group	Male		Female		Total	
	1973	1974	1973	1974	1973	1974
	Cases	Cases	Cases	Cases	Cases	Cases
0-14	90	77	172	193	262	270
15-19	1,880	2,031	1,989	1,961	3,869	3,992
TOTAL	1,970	2,108	2,161	2,154	4,131	4,262

*Note Appendix O, Table V.

Table 19

Congenital Syphilis
1973 and 1974

Age Group	Number of Cases		Percent of Total	
	1973	1974	1973	1974
< 1	313	270	20.5	23.8
1-4	81	59	5.3	5.2
5-9	11	13	.7	1.1
10+	1,122	795	73.5	69.9
TOTAL	1,527	1,137	100.0	100.0

Reference - U.S. Department of Health, Education, and Welfare, *Reported Morbidity and Mortality in the United States 1974*, Vol. 23, No. 53, p. 14.

Child Abuse and Neglect

The issue of child neglect and abuse is only beginning to be recognized as a major problem of health and society. The reporting systems are receiving constant revision which interferes with the statistical data available at this time in West Virginia.

Thomas R. Tinder, Commissioner of Welfare, 1975-1977, by personal letter provided the data received from the National Clearinghouse on Child Neglect and Abuse for the first three quarters of 1975. (Table 20).

The Department of Welfare is implementing a computer-based Social Service Information System, and we will be able to obtain more complete statistical data when the system is fully operational.

Recent reports from field staff, statewide indicate that the average number of complaints received each month is 500. Therefore, the figures below represent about one quarter of the actual number of families the department served during that period. (Table 20).

In noting the school age children 5 to 18 years old, there were 620 cases reported.

There were 56 cases reported of parents under 21 years of age.

Table 20

Child Neglect and Abuse in West Virginia Report January to August 1975

Total Number of Reports	1,112
Substantiated Reports	323
Total Number of Children Involved in Substantiated Reports	927
Number of Children 5 - 18	620
Number Actively in School	576
Number of Parents Under 21	56
Who Listed Their Occupation as Student	1

The school system has two major concerns in the area of child abuse, the abused and neglected child in the school, and the prevention of child abuse and neglect. In cases of suspected child abuse and neglect, the school personnel have a legal and moral responsibility to report suspicions to the Child Protection Services. A system for reporting should be established within the school and county board of education offices. This system should be developed and be implemented through in-servicing of teachers to utilize the procedure. This procedure should include a form for reporting cases, feedback form to teacher and school personnel, and completion form of action taken by the Child Protection Services and the school. This communication procedure would enhance the school's role and Child Protection Service's role in identifying the abused and neglected child.

In the area of prevention of child abuse, learning to comprehend and understand child growth and behavior would prepare every student in area of parenting. The lack of knowing what behavior to expect from different developmental stages of a child promotes child abuse.

Principal Causes of Death

The Number of Resident Deaths by Important Causes of Age Group, Vital Statistics, West Virginia Department of Health reports a total of 302 deaths in the five to 19 year olds in 1974. (Table 21).

Accidents of all forms claimed 171 lives in 1974. Motor vehicle accidents have the highest number, 110. There were 10 suicides recorded for this period. (See Table 22).

The West Virginia Department of Health, Division of Alcoholism and Drug Abuse, 1976, reports drug related deaths, as four in the 0 to 17 year olds and seven in the 18 to 30. In reference to Drug Treatment Programs, there were 285 admissions in the 0 to 20 year old range from July 1, 1974, through June 30, 1975. (Note Appendix O, Tables W, X, and Y.)

Of the total number of cancer cases reported in 1974, 75 of the 4,118 reported were under the five to 24 year old age group (See Appendix O, Table Z for Cancer Death Rate per 100,000 based on 1973 population base). Cancer must be detected in the early stages and treated, and the success of treatment is increasing.

In viewing the list of causes of death, the largest destroyer of lives among West Virginians under 20 years of age is accidents and malignant neoplasms. This is consistent with the national trend. In 1974, there were 302 deaths of five to 19 year olds in West Virginia. (See Table 22). Of these deaths, ten were suicide which amounted to just over three percent. The steady increase of adolescent suicide nationwide is certainly a concern. Realizing the societal breakthrough for correctly reporting the incidents contributes to the statistical increase, the fact remains, teenage suicide is a mental health issue which must not be overlooked in the curriculum and health status of the schoolage child.

Approximately 302 classrooms were affected by the deaths of five to 19 year olds. The experience had a definite impression on the classmates, teachers, and school personnel. Is death not a phase of life? Are we preparing to cope with this issue?

Table 21

Principal Causes of Death by Residence Ranked; Cause Classified by Age Groups and Sex, 1974

Cause of Death	Both Sexes		Male		Female	
	Number	Percent	Number	Percent	Number	Percent
			5 to 9 Years			
All Causes	49	100.0	34	100.0	15	100.0
Accidents, all forms	18	36.7	15	44.1	3	20.0
Malignant neoplasms	7	14.3	6	17.7	1	6.7
Pneumonia	6	12.3	4	11.7	2	13.3
Congenital anomalies	3	6.1	3	8.8	-	-
All other causes	15	30.6	6	17.7	9	60.0
			10 to 14 Years			
All Causes	70	100.0	49	100.0	21	100.0
Accidents, all forms	34	48.6	27	55.1	7	33.3
Malignant neoplasms	8	11.4	6	12.2	2	9.5
Congenital anomalies	5	7.1	1	2.0	4	19.1
Influenza and Pneumonia	4	5.7	4	8.2	-	-
Diseases of the heart	2	2.9	-	-	2	9.5
Anemia	2	2.9	2	4.1	-	-
All other causes	15	21.4	9	18.4	6	28.6
			15 to 19 Years			
All Causes	183	100.0	140	100.0	43	100.0
Accidents, all forms	119	65.0	98	70.0	21	48.8
Malignant neoplasms	16	8.8	8	5.7	8	18.6
Suicide	9	4.9	9	6.4	-	-
Homicide	5	2.7	3	2.2	2	4.7
Cerebrovascular disease	3	1.6	2	1.4	1	2.3
Diseases of the heart	2	1.1	-	-	2	4.7
Pneumonia	2	1.1	1	0.7	1	2.3
All other causes	27	14.8	19	13.6	8	18.6

Source:
Vital Statistics, 1974. West Virginia Department of Health: Division of Vital Statistics, pp. 55-56.

Table 22

Number Of Resident Deaths By Important Causes
By Age Groups, 1974

	5 - 9	10 - 14	15 - 19
TOTAL DEATHS, ALL CAUSES	49	70	183
Enteritis and other diarrheal diseases	-	-	-
Tuberculosis, all forms	-	-	-
Septicemia	-	-	-
Syphilis and its sequelae	-	-	-
Malignant neoplasms	7	8	16
--of digestive organs and peritoneum	-	-	-
--respiratory system	1	-	-
--of genitourinary organs	-	-	-
Benign neoplasms and neoplasms of unspecified nature	1	2	1
Diabetes mellitus	-	1	1
Avitaminoses and other nutritional deficiency	-	-	-
Anemias	-	2	-
Major cardiovascular diseases	1	4	8
Disease of the heart	-	2	2
Hypertension	-	-	-
Cerebrovascular disease	1	1	3
Arteriosclerosis	-	-	-
Other diseases of arteries, arterioles, and capillaries	-	1	3
Influenza and pneumonia	6	4	2
Influenza	-	1	-
Pneumonia	6	3	2
Bronchitis, emphysema, and asthma	-	-	-
Pneumoconiosis due to silica and silicates	-	-	-
Peptic ulcer	-	-	-
Hernia and intestinal obstruction	-	-	-
Cirrhosis of liver	-	-	-
Cholelithiasis, cholecystitis, and cholangitis	-	-	-
Nephritis and nephrosis	1	-	-
Infections of kidney	-	-	-

Table 22
(continued)

	5 - 9	10 - 14	15 - 19
Congenital anomalies	3	5	1
Certain causes of mortality in early infancy	-	1	-
Birth injury, difficult labor, and other anoxic and hypoxic conditions	-	1	-
Premature birth	-	-	-
Symptoms and ill-defined conditions	-	-	3
Accidents, all forms	18	34	119
Motor Vehicle Accidents	15	16	79
Home Accidents	1	7	11
Suicide	-	1	9
Homicide	1	1	5
All other causes (Residual)	11	7	18

Source: *Vital Statistics, 1974.* West Virginia Department of Health: Division of Vital Statistics, p. 62.

Summary

This section of existing data is limited in the scope of health issues included as being identified with the health status of the schoolage child. The purpose was not to be conclusive, rather to substantiate the fact that the schoolage child and his/her health must be a concern of the school in cooperation with the home and the community. These data only represent selected areas of recorded behavior in regards to physical health.

The social and mental health of individuals which permeate this entire section have definite implications for classroom instruction above and beyond information dissemination.

In preparing young people with skills which will enhance their adult life; knowledge, understanding, and decision-making in the realm of their health, their family's health and their community's health must be an integrated aspect of the schooling process. These skills will prepare the student for more efficient and effective utilization of the health service system.

Other issues which should be examined by further research are such areas as dental care, weight control, parasitic infestation, contagious diseases, skin problems, and all areas of social and mental health. Statistics for these areas were not readily available.

chapter 3

The grant provided by the West Virginia Regional Medical Program afforded the State Department of Education to:

- bring together various publics who share interest and concerns for health education in West Virginia schools.
- employ a full-time curriculum development specialist, health education in the State Department of Education.
- initiate the first statewide data collection procedure for school health education in West Virginia.
- solicit the cooperation of county systems, high school principals and teachers to view their school health instruction.
- initiate the first organized attempt to assess school health programs in West Virginia.
- provide direction for promoting further study and development of school health curriculum.
- begin directing attention to emphasizing school health programs.
- develop minimum objectives for establishing school health programs.
- develop minimum student outcomes for health education.
- develop a design for assessing school health programs, students' knowledge and interests, parents' perception of students' needs, school personnel's perception of students' needs, and profile description of a school's health program.
- publish and distribute results of this assessment.

Objectives and Outcomes

The outcomes of the West Virginia School Health Assessment Project were to reach the objectives noted in Chapter I. It is felt that all of the objectives were successfully met, the various degrees of success are discussed as follows:

Objective 1) define objectives of a school health program.

The Task Force developed minimum objectives for a school health program. (Appendix A) The completion of this objective enabled the study to address objective 2.

Objective 2) write the objectives in terms of desirable student outcomes.

This objective was designed to assist the assessment phase of the project; a means by which to measure the present status of school health programs in terms of student characteristics rather than program characteristics. Minimum student outcomes were developed. (Appendix B) This step did provide direction for objective 3 and long-range planning for developing competencies K-12.

Objective 3) identify kinds of data which would be valuable in analyzing existing health programs.

This objective was met in coordination with objective 4. The kinds of data indicated as necessary were generated around the student outcomes.

The data selected to be collected were: a) health knowledge of students, b) students' interest in areas of health studies, c) existing information concerning health status of students, d) existing school health programs, and e) procedures the state and local school systems utilize in developing and operating school health programs.

The first three areas for data received the most emphasis which are specified in objective 4. Areas d and e were addressed in the three case study sites. Only two of the three sites had school health programs, thus, additional attention is needed in these areas.

Objective 4) determine the ways of finding what is existing in West Virginia school health programs.

The ways to find data in regards to what students know concerning health, what are their interests, and what health programs exist is the context of this report. The five studies completed are described in total in Chapter 2. These studies focus on health instruction as opposed to a comprehensive school health program.

Objective 5) make recommendations regarding the West Virginia school health program.

The data collection design gathered much information which is useful now and in the future. There are many intermediate steps between designing a project and generating recommendations. One of the most important of these steps is to analyze the data obtained and identify relevant finds.

Findings

The project director feels the significant findings are as follows:

F_1 Health education course enrollment and offerings are minimum in West Virginia secondary schools.

F_2 West Virginia high school students have a lower level of health knowledge than the national norms for high school students across the country.

F_3 Content areas in which students scored best were similar to teachers response on the Health Education Assessment Survey.

F_4 Students are most knowledgeable in content areas which are perceived by teachers and administrators as the most important to teach.

F_5 Students tend to show interest in those content areas of which they have some knowledge and little interest in content areas of which they have very little knowledge; i.e., safety and first-aid vs. nutrition.

F_6 Students have indicated an interest in content areas which are pertinent to their present life and immediate concerns; i.e., family health and mental health.

F_7 Conditions exist which health instruction should be addressing such as, integration of individual's life styles and behaviors into comprehension of health studies and health maintenance.

F_8 There is little or no emphasis in areas of career and consumer health instruction.

F_9 Data collection design is appropriate for assessment by state and local schools.

F_{10} Data indicate school age children of West Virginia do have health concerns and problems; i.e., parenting, accidents, nutritional issues.

F_{11} Health problems of West Virginians are not restricted to the adult population.

F_{12} Many individuals from various publics are interested and willing to work toward improving school health programs in West Virginia.

Recommendations

Based on the previously stated findings, the following recommendations are presented:

R_1 Continue studies to include why student knowledge is below national norms.

R_2 Develop curriculum and learning experiences to address students' present needs.

R_3 Expand the definition and understanding of health education beyond "structure and function of human body."

R_4 Increase instruction in the areas of career and consumer health.

R_5 Promote health studies as it relates to today and throughout life.

R_6 Initiate the updating of evaluation instruments to assess student (learner) behavior, and teachers' knowledge and behavior (attitudes).

R_7 Add to this assessment of eleventh grade students' knowledge and interests to include the assessment of early childhood, elementary, and middle school students.

R_8 Direct attention of school administrators to the health education instruction requirements for elementary and secondary curriculum standards.

R_9 Focus on the total comprehensive school health program (curriculum) which includes the environment, services, and instruction.

R_{10} Coordinate and integrate all crisis approaches into a comprehensive school health program.

R_{11} Continue the School Health Task Force for the purpose of seeking solutions to existing issues facing the health status of the school age child.

R_{12} Promote the data collection design developed to be used by county school systems for assessing their school health programs.

The report is not to say "we did not know school health programs in West Virginia were in need of modification in areas of curriculum development." The report documented the facts. The purpose of the project was not to produce data which in turn would correct or "be a cure-all," but rather to stimulate awareness of our intent as educators to prepared young people to become responsible adults with skills to enhance a meaningful life. Health is a way of enhancing life. Helth instruction should provide learning experiences to develop decision-making skills which are useful and meaningful now as well as in adulthood.

This study should be useful to those who want to assist in instituting modifications and as a mechanism for seeking answers to problems from students, all school personnel, parents, and community health providers.

The procedure is not being advocated as the answer. However, it should answer many preliminary questions and provide a design to begin seeking additional solutions.

chapter 4

Berty, Ernest, Ed. D. and Janet Heinritz - Canterbury. *Health Education Assessment Survey*. Prepared for West Virginia School Health Task Force, West Virginia Department of Education, July 1975.

Bryant, Ronald G. Director of V.D. Control, West Virginia Health Department, Charleston, West Virginia, 1976.

Dyer, N. H. West Virginia Nutrition Study, *Conference Report: Follow Through on West Virginia Nutrition Survey*. (Charleston: West Virginia Department of Health and West Virginia Department of Education, 1970), page 10-13.

Large, Nancy F. The Vital Role of Nutrition in Children's Lives, *Nutrition Education Workshops in Early Childhood, July 1971*. (Charleston: West Virginia Department of Health and West Virginia Department of Education, 1970), page 22-62.

McFarlane, Nancy. *Statistical and Verbal Analysis of School Health Enrollment in West Virginia Public Schools, Grades 7-12*. Paper prepared for the West Virginia School Health Task Force, West Virginia Department of Education, May 1975, page 1.

McGanity, William. A Charge to Conference Participants, *Conference Report: Follow Through on West Virginia Nutrition Survey*. (Charleston: West Virginia Department of Health and West Virginia Department of Education, 1970), pages 19-20.

Morgan, Walter, M.D., M.P.H. *The Health of West Virginia*. West Virginia University School of Medicine, Morgantown, West Virginia, 1974.

Ramsdell, Leslie Charles. *An Analysis of Health Interests and Needs of West Virginia High School Students*. A dissertation, West Virginia University, August, 1970.

Russell, Robert D. *Health Education*. Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association. Sixth Edition Completely Rewritten, 1975, page 32.

Scrimshaw, Nevin S. Infant Malnutrition and Adult Learning, *Saturday Review*, LI (1967), 64-66, cited by Janet L. Cameron, *Highlights of Research on Nutrition and Mental Ability*. (Denver: American School Food Service Association, 1970), page 2.

Shaefer, Arnold E. The National Nutrition Survey and Its Implications *Conference Report: Follow Through on West Virginia Nutrition Survey*. (Charleston: West Virginia Department of Health and West Virginia Department of Education, 1970), pages 8-9.

Simmons, Jeanette J., M.P.H. DCs. Complex Issues Facing Health Education. *American Journal of Public Health*. May 1976, 66, Number 5, page 430.

Teenagers: Marriage, Divorces, Parenthood, and Mortality. Vital and Health Statistics Systems, U.S. Department of Health, Education and Welfare, Series 21 - Number 23, August 1973.

Tinder, Thomas R., Commissioner of Welfare, State of West Virginia, *personal correspondence*, 1975.

Todhunter, E. Neige. Physical and Emotional Needs of Early Childhood, *Nutrition Education Workshops in Early Childhood, July 1971*. (Charleston: West Virginia Department of Education, School Food Services, Bureau of Services and Federal Program, 1972), page 15-20.

U.S. Department of Health, Education and Welfare, Health Services and Mental Health Administration. *Highlights: Ten-State Nutrition Survey, 1968-70*. (Atlanta: Center for Disease Control, n.d.)

Vital Statistics, Division of Vital Statistics, West Virginia Department of Health, 1974, page 55 and 62.

West Virginia Vital Statistics Report, West Virginia Department of Health, December 1974 and January 1975.

Winick, Myron. Nutrition and Intellectual Development in Children, *Nutrition and Intellectual Growth in Children*, ed. Sylvia Sunderlin. (Washington: The Association for Childhood Education International, 1969), page 27.

appendices

appendix A

School Health Program Goals

Utilizing the Comprehensive Educational Program, West Virginia Educational Goals, and the expertise of the task force, a West Virginia School Health Program description and objectives were formulated.

The school health program is that phase of the community health program that takes place in the school through the efforts of school personnel and consists of school health instruction, healthful school environment, and school health services.

Goal: A school health program should provide for the growth of social, physical, emotional, psychological, and spiritual needs of individuals within the school community. The needs are met through the organized interaction of health services, instruction, and healthful environment.

Instruction: The instructional program is that aspect of total school health program that affords the opportunity for the student to become involved in a program functioning to meet students' needs and interests. The student is the direct focus which connects him/herself and all other aspects of the total program.

Service: Through the efforts of the school health service component, each student should maximize his/her potential to develop and maintain well-being and academic progress.

Environment: Both the physical surroundings and the emotional climate contribute to a desirable school environment. This phase of a school health program is important to the student's learning process, thus, the relationship to a school health program.

appendix B

Student Outcome Goals

Overall Goals:

Upon graduation from public schools in West Virginia, a student shall possess the competencies to make rational, intelligent decisions regarding his/her health behavior and maintenance.

Sub-Goals and Objectives:

1.0 The student shall develop skills to integrate health information with personal life style.

1.1 The student shall demonstrate the capability to identify, analyze, and synthesize health knowledge. (cognitive domain; all levels are implied in this statement; knowledge, comprehension, application, analysis, synthesis, evaluation.)

1.2 The student shall demonstrate knowledge of health concepts.

2.0 The student shall develop attitudes to make decisions beneficial to the health of both the individual and his/her community.

2.1 The student shall demonstrate concern and action for the total community environment.

2.2 The student shall show sensitivity to persons with special health problems, i.e., adolescent parenthood, obesity, genetic disorders, skin diseases, etc.

3.0 The student shall demonstrate the interdependencies of home, school, and community as related to the individual health behavior and maintenance

3.1 The student shall recognize the effects of environment on learning and survival potential.

3.2 The student shall demonstrate an understanding of the importance of interagency and interprofessional cooperation in health maintenance.

3.3 The student shall participate under his/her own initiative in activities that contribute to a safe and healthful school environment.

appendix C

SURVEY QUESTIONNAIRES

PRINCIPAL'S FORM
PART I

SURVEY OF HEALTH EDUCATION IN WEST VIRGINIA SCHOOLS

Name of School	
Street address	
City or town	
County	Zip code

Name of Principal (Last, first, and middle initial)	Date

1 Total membership in your School on Reporting Date

2 Indicate your type of School Organization by placing a "X" in the appropriate place.

	Six-year high school (7-12)
	Two of three year junior high school (7-8 or 7-9)
	Three-year senior high school (10-12)
	Four-year high school (9-12) following eight years elementary
	Four-year high school (9-12) following six years elementary and two years of junior high school
	Other

3 Is Health taught in your school as a separate subject?

☐ YES ☐ NO

4 In your opinion, what degree of emphasis should be placed on the following Components of Health Education in your school? ("X" one for each Component)

Degree of Emphasis			Components of Health Education
High	Med	Low	
			a. Community Health
			b. Consumer Health
			c. Disease Prevention and Control
			d. Environmental Health
			e. Family Life
			f. First Aid
			g. Growth and Development
			h. Harmful Substances
			i. Health Careers
			j. Health Maintenance and Care
			k. Other

5 To what extent is Health Education required with a specific time allotment in the Elementary Schools that send their graduates to your Secondary School? ("X" only one)

	Not applicable. This school receives its students from non-elementary schools.
	Not required in any elementary school and none have it
	Not required in any elementary school but some do have it
	Required in some elementary schools
	Required in all elementary schools
	Don't know
	Other

6 Give the number of weeks Health Education was and/or is required for boys and for girls in your school during 1972-73, 1973-74 and 1974-75 for those grade levels under your administration. If not compulsory, write a zero "0".

Grade Level	Number of Weeks Required					
	1972-73		1973-74		1974-75	
	Boys	Girls	Boys	Girls	Boys	Girls
Grade 7						
Grade 8						
Grade 9						
Grade 10						
Grade 11						
Grade 12						
School not Operating:("X" If Applicable)	1972-73		1973-74			

7 May Health Education courses be substituted for science credits in your school: ("X" one) ☐ Yes ☐ No

8 Indicate the **approximate** expenditures for Health Education in your school for the year 1974-75: (If necessary, telephone your central business office)

Expendable Supplies	Equipment
$	$

9 IMPORTANT: Please list the names of your eachers of Health Education courses, and give each of them one of the enclosed green form-Part II, with a self-addressed enveloped. If additional forms are needed for any teachers, please place a "X" opposite their name on the list and forms will be sent directly to them.

	Name of Teachers (First, Middle Initial, and Last)

10. For each type of health service listed below indicate those **not** now available to pupils in this school. For those which are available, record the number of persons full-time and part-time who are resident in this school **or** the waiting time for those services available upon call from the Central Office or other agency.

HEALTH SERVICES	Not Available	Available: Resident in School		Available: Waiting Time			
		Full-Time	Part-Time	0-1 Week	2-3 Weeks	1-3 Months	Over 3 Months
Psychiatrist	☐						
School psychologist	☐						
Psychometrist	☐						
Physician (other than psychiatrist)	☐						
Dentist	☐						
Nurse	☐						
Dental hygienist	☐						
Speech therapist	☐						
Physical therapist	☐						
Other health services (Specify)	☐						
_____	☐						
_____	☐						

Do you have a separate specialized room or facility which is physically contained in your school for the purpose of medical examinations or treatment?

☐ Yes ☐ No

SURVEY QUESTIONNAIRE

SURVEY OF HEALTH EDUCATION IN WEST VIRGINIA SCHOOLS
-(Teacher's Form-Part II)-

NAME OF SCHOOL _____

STREET ADDRESS _____

CITY OR TOWN _____

COUNTY _____

ZIP CODE _____

Return to: Department of Education in the enclosed Pre-addressed envelope. No Postage Required.

General Information

Purpose: The purpose of this survey is to find out basic information about health education and instruction and to identify some of the critical needs in this area.

Directions: This survey form is being sent to the secondary schools in the state. The survey has two parts. The principal of the school has been asked to complete Part I and to forward Part II to each of his health education teachers.

Part II (green form) should be completed by health education teachers giving their best **estimate** based on information readily available.

Complete the form as quickly as possible and return it in the self-addressed envelope enclosed.

Definitions

Grades Covered. Report data for whatever grades of the range 7 through 12 constitute the program of secondary education in your school.
Exclude grades 7 and 8 that are part of a program of elementary education.

Name of Reporting Teacher (Last, First, Middle Initial)	Date

1 In your opinion, what degree of emphasis should be placed on the following components of health education in your school? ("X" one for each component)

Degree of Emphasis			Components
High	Med	Low	
			a. Community Health
			b. Consumer Health
			c. Disease Prevention and Control
			d. Environmental Health
			e. Family Life
			f. First Aid
			g. Growth and Development
			h. Harmful Substances
			i. Health Careers
			j. Health Maintenance and Care
			k. Other

2 "X" The type of State Teaching Certificate you hold

	Regular or standard (i.e., a certificate representing Full qualifications)
	Emergency or sub-standard (i.e., a certificate representing Less qualifications)

3 "X" the highest educational degree which you have earned

	No degree		Master's
	Associate degree		Doctor's
	Bachelor's		Other

4 "X" the approximate number of semester hours you have earned (graduate & undergraduate) for each of the following curriculum areas. (Note: To convert quarter hour courses to semester hours multiply quarter hours by 2/3. A three quarter hour course is equal to two semester hours)

Curriculum Areas	No. of Semester Hours Completed						
	0-5	5-10	11-20	21-30	31-40	41-50	51 and over
Science & Mathematics Courses "X" one							
Health Education "X" one							
Education Courses (Curriculum,methods student teaching, etc.) "X" one							
All other courses (English, history, etc.) "X" one							

5 "X" your total years of experience teaching health education (Grades 7-12) include this year

	one yr.		11-15 yrs.
	2-3 yrs.		16-20 yrs.
	4-5 yrs.		21 yrs. or more
	6-10 yrs.		

6 In which of the following activities do you have a major responsibility this year? ("X" as many as apply)

	None		School Paper
	Health Education Contests		Student Book Store or Concession
	Athletic Contests (non-coaching duties)		Year Book
	Coach Athletics		Lunch Room
	Health Education Club		Class Advisor
	School Club Advisor (other than item above)		Home Room
	Supervision of School Grounds		Audio-visual Coordinator
	Field Trips (general)		School Assemblies
	Student Council		Other

7 Indicate the Non-Health Education classes you teach. ("X" as many as apply)

	None		Driver Education
	Physical Education		Physics
	General Science		Agriculture
	Biology		Citizenship
	Social Studies		English
	Geometry		Other
	Algebra		
	General Mathematics		
	General Business		

8 Relative to the range of ability of all students in your school, how would you characterize the range of ability of students who take your health education classes as **electives** at each grade level you teach. ("X" one box for each grade level that applies.)

Elective Classes	Ability Range			Not Applicable-Course Is Required
	Above (Top third)	Middle (Middle third)	Below (Bottom third)	
Grade 7				
Grade 8				
Grade 9				
Grade 10				
Grade 11				
Grade 12				

9 What curriculum guide is used most for determining instructional content in your health education courses? ("X" only one box)

	Guide Prepared in local school district		None
	W.Va. state curriculum guide		Guide prepared by yourself
	Other state or local curriculum guide or guides		Other (Specify):
	Textbooks		

10 What teaching method do you most often use in teaching students who have not had previous work in health education, but are scheduled in a second or third year class? ("X" only one box)

	Use more individual teacher's time		Use teaching aide
	Use an advanced student who is in the class		Does not apply
	Use printed instruction materials		Other (Specify):
	Make individual assignments in textbooks		

11 What method do you most often use in providing students with supplies needed in your class? ("X" only one box)

	Supplies are furnished free of charge to students
	Students pay for what they use
	A minimum fee is charged which is the same for all students
	School provides some supplies free, student pays for additional amount
	Other (Specify):

12 What significant changes have taken place since last year in the health education courses you are teaching during this school year 1974-75? ("X" as many as apply)

	I did not teach health education last year.
	No significant changes made
	Offered new courses for upper ability students Title:
	Introduced new general course without reference to ability entitled:
	Made major revision in courses to include new instruction areas such as
	Developed a close relationship between science and health education instruction
	Conducted a work experience program
	Introduced new course for slow students entitled: _____
	Other (Specify):

13 Indicate the degree of difficulty you have with the following list of teaching problems. ("X" one degree of difficulty for each teaching problem)

How Difficult			Teaching Problems
Very	Some-What	Not At All	
			Acquiring and teaching new or modern concepts of health
			Improving my ability to present health concepts in an interesting manner
			Securing an adequate text book
			Supplying supplementary materials
			Obtaining and using visual aids
			Getting improved library facilities
			Providing career guidance material in health occupations
			Acquiring an adequate degree of manipulative skills
			Arranging and conducting field trips
			Finding adequate preparation time for experiments and demonstrations
			Improving related lessons and/or demonstrations
			Improvising simple equipment
			Keeping equipment in good repair
			Providing for the superior pupil
			Knowing how to teach problem solving
			Finding good health education projects
			Finding time for helping individual pupils
			Interpreting health education to the lay public
			Keeping up with advances in health education
			Other (Specify):

Information for each Health Education class		ASSIGNMENT OF HEALTH EDUCATION CLASSES/COURSES				
		Assignment #1	Assignment #2	Assignment #3	Assignment #4	Assignment #5
PART A	Name of Course					
PART B	No. Weeks in Session					
	No. Days Per Week					
	No. Periods Per Day					
	No. Minutes Per Period					
PART C	Grade Level of Students in Class	Enrollment	Enrollment	Enrollment	Enrollment	Enrollment
	Grade 7					
	Grade 8					
	Grade 9					
	Grade 10					
	Grade 11					
	Grade 12					

Use this space for any remarks you wish to make

appendix D

Sampling Procedure

The sampling design called for a systematic random selection of 25 eleventh grade students from a stratified random sample of 30 West Virginia senior high schools. The following steps were followed in identifying the participating schools and the students within each of the schools:

- The 175 high schools were ranked in order from the largest to the smallest based upon the number of eleventh grade students. The names of the schools and the number of eleventh grade students in each was provided by the Bureau of Planning, Research, and Evaluation, West Virginia Department of Education.

- The schools were then divided into six categories with each stratum containing approximately an equal number of eleventh grade students. The schools within each stratum were numbered consecutively from the largest to the smallest based upon the number of eleventh grade students. Five schools plus three alternates were selected through the use of a table of random numbers. (Bloomers and Lindquist, 1960).

- An alphabetical listing of the eleventh grade students in each of the selected schools was provided by the coordinator for Assessment and Testing, West Virginia Department of Education. From this list, a random sample of 25 students, plus alternates, was selected.

Of the 30 schools selected, 26 agreed to participate. The first alternate in the appropriate strata was utilized in order to get a total of 30 schools. Once the school had agreed to participate, a package of materials was sent to the principal or his designee. The package included 25 test booklets and answer sheets and a list of 25 eleventh grade students, plus the names of the alternates. Instructions specified that students should be informed that (1) the instrument attempts to measure one's health knowledge; (2) they are not required to answer every question; and (3) their participation is voluntary. In the event that any one of the 25 students was unable or preferred not to take the test, school personnel were asked to select a replacement(s) from the list of alternates in the order in which their names appeared. Out of a potential of 750 subjects (25 students from 30 schools), 729 useable answer sheets were returned (350 males and 379 females).

According to the manual the percentile and standard score norms were obtained from a total of 4,476 cases. The norms are based on cases from 97 school systems in 38 states. Norms are presented for twelfth grade males and females, nationwide, for use at the senior high level.

Reliability coefficients of .89 for males and .80 for females are reported in the manual. A comparison of the reliability coefficients computed for the national sample and the West Virginia sample are presented in Table A. It is interesting to note that, for both samples, the inventory appears to be somewhat less reliable for senior high females than males.

James Bryan, training administrator, U.S. Public Healt reviewing the test concluded that "although this reviewer may appear rather harsh, especially for the Senior High Le he considers the inventories to be quite comprehensive sound." (Bryan, 1965). Peter G. Loret, program directo Testing Service, concluded in his review that "of the three series, the elementary and senior high test should prove helpful in their present form to those wishing to gain ins health knowledge, practices, and attitudes of their stude 1965).

Table A

Reliability Coefficients[a] and Related Data Health Behavior Inventory, Senior High

Sex	National Sample[b]		West Virginia	
	Reliability Coefficients	Standard Error of Measurement	Reliability Coefficients	St of M
Males	.89	3.2	.90	
Females	.80	2.9	.84	

a All coefficients computed through the use of Kuder-Ric formula 20.

b Number of cases = 1,000 males; 1,000 females.

c Number of cases = 350 males; 379 females.

Paul Bloomers and E.F. Lindquist, *Elementary Statistic Psychology and Education*, (Boston: Houghton Mifflin Co pp. 512-515.

James E. Bryan, "Health Behavior Inventory," *The Measurement Yearbook*, ed. O.K. Buros (Highland Pa Gryphon Press, 1965), p. 965.

Peter G. Loret, "Health Behavior Inventory," *The Measurement Yearbook*, ed. O.K. Buros (Highland Pa Gryphon Press, 1965), p. 962.

appendix E

Each * represents one person (N=379)

RAW SCORE	
65	*
64	**
63	*
62	***
61	******
60	*****
59	**********
58	**********
57	**********
56	*********
55	**********
54	**********
53	**********
52	**********
51	**********
50	**********
49	**********
48	**********
47	**********
46	**********
45	**********
44	**********
43	**********
42	**********
41	*******
40	****
39	******
38	***
37	***
36	*******
35	**
34	***
33	******
32	**
31	*******
30	****
29	**
28	*
27	**
26	**
25	
24	
23	*
22	
21	
20	*
19	*
18	
17	
16	*
15	
14	*
13	*

Figure 1. Frequency distribution of Health Behavior Inventory raw scores for West Virginia eleventh grade Females.

Each * represents one person (N=350)

RAW SCORE	
65	*
64	**
63	*
62	***
61	**
60	**
59	*****
58	*******
57	*******
56	**********
55	********
54	*******
53	*********
52	**********
51	**********
50	**********
49	**********
48	********
47	**********
46	**********
45	**********
44	**********
43	*********
42	**********
41	**********
40	**********
39	**********
38	***
37	********
36	****
35	*******
34	*****
33	*
32	********
31	****
30	*******
29	*******
28	******
27	********
26	********
25	******
24	***
23	****
22	***
21	**
20	****
19	*
18	*
17	******
16	*
15	**
14	*
13	*
12	
11	
10	
9	
8	*

Figure 2. Frequency distribution of Health Behavior Inventory raw scores for West Virginia eleventh grade Males.

appendix F

Table B

HEALTH BEHAVIOR INVENTORY

Mean, standard deviation, and national percentile of West Virginia eleventh grade students attending the larger schools by sex and school

	Males				Females			
Larger Schools	Number	Mean	Standard Deviation	Percentile*	Number	Mean	Standard Deviation	Percentile*
A01	7	46.43	11.00	27	18	50.17	5.97	18
A02	11	45.00	8.27	24	14	51.79	4.14	27
A03	12	41.33	14.06	16	13	49.77	5.78	18
A04	17	45.88	9.40	27	8	54.25	5.57	38
A05	9	44.78	3.96	24	16	51.13	7.17	24
A06	15	38.20	18.59	14	10	51.50	6.85	27
A07	7	48.57	6.70	38	8	50.13	9.37	18
A08	12	45.00	6.24	24	13	49.46	6.12	16
A09	15	41.60	9.96	18	8	53.88	4.76	38
A10	12	42.67	12.55	21	10	45.50	10.37	10

*Percentile based on national norms provided in test manual.

Table C

HEALTH BEHAVIOR INVENTORY

Mean, standard deviation, and national percentile of West Virginia eleventh grade students attending medium size schools by sex and school

Medium Size Schools	Males				Females			
	Number	Mean	Standard Deviation	Percentile*	Number	Mean	Standard Deviation	Percentile*
B01	12	45.67	10.92	27	13	51.46	7.60	24
B02	15	47.40	9.08	31	10	50.50	12.44	24
B03	8	39.13	6.22	14	17	48.59	8.83	16
B04	8	41.63	12.28	18	16	45.06	11.90	8
B05	12	47.67	9.37	34	13	53.77	6.14	38
B06	13	43.23	12.22	21	12	44.50	8.39	8
B07	9	44.00	11.26	21	16	42.75	7.40	5
B08	14	44.93	13.22	24	11	46.18	8.77	10
B09	14	39.57	13.77	16	11	50.45	6.93	18
B10	11	38.91	10.89	14	14	50.79	7.91	24

*Percentile based on national norms provided in test manual.

Table D

HEALTH BEHAVIOR INVENTORY

Mean, standard deviation, and national percentile of West Virginia eleventh grade students attending the smaller schools by sex and school

	Males				Females			
Smaller Schools	Number	Mean	Standard Deviation	Percentile*	Number	Mean	Standard Deviation	Percentile*
C01	12	35.00	11.18	10	13	46.08	8.99	10
C02	10	42.60	14.98	21	15	49.93	3.79	18
C03	11	48.36	9.39	34	14	47.43	10.32	12
C04	10	46.90	8.96	31	13	52.23	5.09	27
C05	13	40.08	14.42	16	12	39.75	9.04	3
C06	13	28.46	6.20	5	12	36.92	10.41	2
C07	14	40.57	9.23	16	9	49.00	5.20	16
C08	12	48.58	5.18	38	13	48.23	6.46	14
C09	13	30.77	9.40	8	12	42.42	11.24	4
C10	9	32.33	10.01	8	15	42.47	9.88	4

*Percentile based on national norms provided in test manual.

appendix G

Health Interests Inventory

DIRECTIONS: You have been selected to be part of a survey to identify the health interests of eleventh grade students in West Virginia. Your honest and sincere response will be necessary if the results are to show where your interests REALLY are. Below you will find a number of statements about health. Read each statement carefully and decide the amount of interest you now have in knowing or learning more about the topic. Place a check mark (✓) in the box under No Interest, Low Interest, Medium Interest, or High Interest for each statement. Be sure to fill in only one space for each health statement.

Your participation in this survey is voluntary. If you prefer not to respond to a particular statement, then leave that item blank.

Name _____

Homeroom Teacher _____

Name of School _____

Sex: Male ( ) Female ( )

	No Interest	Low Interest	Medium Interest	High Interest
1. The advantages of physical fitness	( )	( )	( )	( )
2. The signs and symptoms of diabetes	( )	( )	( )	( )
3. Selecting non-prescription drugs	( )	( )	( )	( )
4. The meaning of love	( )	( )	( )	( )
5. Resistance to disease and how you can help to keep it high	( )	( )	( )	( )
6. The types of wounds and how a first aider should help care for them	( )	( )	( )	( )
7. Why water is necessary to life	( )	( )	( )	( )
8. The effects of abortion on the mother and father	( )	( )	( )	( )
9. Digestion of food and the kinds of food that help in digestion	( )	( )	( )	( )
10. The reasons for keeping records of births, diseases, and deaths	( )	( )	( )	( )
11. How to prevent and treat shock	( )	( )	( )	( )
12. The importance of your personal appearance and how you look to others	( )	( )	( )	( )
13. What help you and your family can get from various health organizations	( )	( )	( )	( )
14. Where and why most accidents occur in school	( )	( )	( )	( )
15. Helping a person to breathe who has stopped breathing	( )	( )	( )	( )
16. The basic types and amounts of food that you should eat each day	( )	( )	( )	( )
17. Evaluating consumer health products and foods	( )	( )	( )	( )
18. Problems in dating	( )	( )	( )	( )
19. The relationship of health and personality	( )	( )	( )	( )
20. How to recognize and get treatment for venereal disease	( )	( )	( )	( )
21. The function of the bones and muscles in your body	( )	( )	( )	( )
22. How home and community life is affected by alcohol drinking	( )	( )	( )	( )

	No Interest	Low Interest	Medium Interest	High Interest
23. Air and water pollution as major health hazards	( )	( )	( )	( )
24. How the community prepares itself for emergencies	( )	( )	( )	( )
25. What it means to be a woman	( )	( )	( )	( )
26. How poor teeth can affect the whole body	( )	( )	( )	( )
27. Helpful ways to improve the growth and development of your body	( )	( )	( )	( )
28. How smoking affects the heart and blood pressure	( )	( )	( )	( )
29. How smoking affects your eating habits	( )	( )	( )	( )
30. How your glands affect your growth	( )	( )	( )	( )
31. How to relax	( )	( )	( )	( )
32. How emotional tension is related to both underweight and overweight	( )	( )	( )	( )
33. Why you need to know if your blood is Rh positive or Rh negative	( )	( )	( )	( )
34. Diseases which can be prevented by having a vaccination	( )	( )	( )	( )
35. When you should diet or change your eating habits	( )	( )	( )	( )
36. The relationship between drugs and accidents	( )	( )	( )	( )
37. The selection and use of aids in caring for your teeth and breath	( )	( )	( )	( )
38. Clothing fads and fashions	( )	( )	( )	( )
39. Health insurance--how much it costs and the different kinds available	( )	( )	( )	( )
40. The effects of divorce on parents and children	( )	( )	( )	( )
41. How to avoid worry and nervousness	( )	( )	( )	( )
42. Diseases that are spread in polluted water	( )	( )	( )	( )
43. The functions of the heart	( )	( )	( )	( )
44. How white blood cells help destroy germs in your body	( )	( )	( )	( )
45. The physical changes that take place in your body during adolescence	( )	( )	( )	( )
46. Ways to make your school safe and healthful	( )	( )	( )	( )
47. The meaning of death	( )	( )	( )	( )
48. The effects of identifying and treating illnesses by yourself	( )	( )	( )	( )
49. When you should see a doctor	( )	( )	( )	( )
50. Career opportunities in the health occupations	( )	( )	( )	( )
51. The services and work performed by the World Health Organization	( )	( )	( )	( )
52. Ways to develop confidence in yourself	( )	( )	( )	( )
53. Role of vitamins in supplementing your diet	( )	( )	( )	( )
54. Ways to help lose weight without harming yourself	( )	( )	( )	( )

	No Interest	Low Interest	Medium Interest	High Interest
55. Identifying nutritious snack foods	( )	( )	( )	( )
56. The danger signs of cancer	( )	( )	( )	( )
57. Ways to select better food for you to eat	( )	( )	( )	( )
58. Pros and cons of fluoridation	( )	( )	( )	( )
59. How to develop your own health standards and values	( )	( )	( )	( )
60. Factors which regulate the rate of breathing	( )	( )	( )	( )
61. Factors which determine how much you should weigh	( )	( )	( )	( )
62. Various characteristics you were born with and others which you have learned	( )	( )	( )	( )
63. How your attitudes affect the way you behave	( )	( )	( )	( )
64. What it means to be a man	( )	( )	( )	( )
65. The birth process	( )	( )	( )	( )
66. How you should choose a doctor	( )	( )	( )	( )
67. Birth control	( )	( )	( )	( )
68. Why it is important to eat at definite times during the day	( )	( )	( )	( )
69. The problems involved in establishing your own home	( )	( )	( )	( )
70. The importance of a well-balanced diet in maintaining good health	( )	( )	( )	( )
71. The marriage relationship	( )	( )	( )	( )
72. Function of disaster relief programs	( )	( )	( )	( )
73. How to solve personal problems	( )	( )	( )	( )
74. Ways to help get along with family and friends	( )	( )	( )	( )
75. Care and treatment of skin problems	( )	( )	( )	( )
76. The effect of physical exercise on the body	( )	( )	( )	( )
77. The rights of the non-smoker	( )	( )	( )	( )
78. What conditions are necessary for passing on a disease from one person to another	( )	( )	( )	( )
79. Following a doctor's directions for taking care of simple illnesses	( )	( )	( )	( )
80. The effects of using drugs for kicks	( )	( )	( )	( )
81. Finding places in your community where you can get help in solving a personal problem	( )	( )	( )	( )
82. The importance of enough sleep and rest	( )	( )	( )	( )
83. The danger of using drugs for weight control	( )	( )	( )	( )
84. How to help a person who is bleeding severely	( )	( )	( )	( )
85. The purpose of medical examination	( )	( )	( )	( )
86. How medicines assist in fighting disease	( )	( )	( )	( )
87. Dangers of overweight and/or underweight	( )	( )	( )	( )

	No Interest	Low Interest	Medium Interest	High Interest
88. How people in your community can help protect their health	( )	( )	( )	( )
89. The effects of medicine on your body	( )	( )	( )	( )
90. Body odor and why you may not be aware of your own odor	( )	( )	( )	( )
91. How to use cosmetics properly	( )	( )	( )	( )
92. How alcohol affects the body	( )	( )	( )	( )
93. How alcohol causes mental changes	( )	( )	( )	( )
94. The effect that drugs may have on your personality	( )	( )	( )	( )
95. Which foods help to build and repair body tissues	( )	( )	( )	( )
96. How to prevent bad breath	( )	( )	( )	( )
97. Safety hazards in the home	( )	( )	( )	( )
98. How smoking can influence the way you live	( )	( )	( )	( )

OTHER TOPICS: What else would you like to know or learn more about?

appendix H

Health Needs Inventory

DIRECTIONS: You have been selected to be part of a survey to identify the health NEEDS of West Virginia high school students. This is NOT asking what the school should teach. Health needs are the responsibility of the home, school, and community. The indicated needs could be met by many different agencies. As a parent or guardian of a high school student, please tell us what you think are the health needs of your son/daughter. Below you will find a number of statements about health. Read each statement carefully and decide the amount of NEED you feel your son or daughter has for knowing or learning about that topic. Please a check mark (✓) in the box under No Need, Low Need, Medium Need, or High Need for each statement. Be sure to fill in only one space for each health statement. If you prefer not to respond to a particular statement, then leave that item blank.

Name _____

Parent or Guardian of _____
(eleventh grade student's name)

Name of School _____

Date _____

	No Need	Low Need	Medium Need	High Need
1. The advantages of physical fitness	( )	( )	( )	( )
2. The signs and symptoms of diabetes	( )	( )	( )	( )
3. Selecting non-prescription drugs	( )	( )	( )	( )
4. The meaning of love	( )	( )	( )	( )
5. Resistance to disease and how you can help to keep it high	( )	( )	( )	( )
6. The types of wounds and how a first aider should help care for them	( )	( )	( )	( )
7. Why water is necessary to life	( )	( )	( )	( )
8. The effects of abortion on the mother and father	( )	( )	( )	( )
9. Digestion of food and the kinds of food that help in digestion	( )	( )	( )	( )
10. The reasons for keeping records of births, diseases, and deaths	( )	( )	( )	( )
11. How to prevent and treat shock	( )	( )	( )	( )
12. The importance of your personal appearance and how you look to others	( )	( )	( )	( )
13. What help you and your family can get from various health organizations	( )	( )	( )	( )
14. Where and why most accidents occur in school	( )	( )	( )	( )
15. Helping a person to breathe who has stopped breathing	( )	( )	( )	( )
16. The basic types and amounts of food that you should eat each day	( )	( )	( )	( )
17. Evaluating consumer health products and foods	( )	( )	( )	( )
18. Problems in dating	( )	( )	( )	( )
19. The relationship of health and personality	( )	( )	( )	( )
20. How to recognize and get treatment for venereal disease	( )	( )	( )	( )
21. The function of the bones and muscles in your body	( )	( )	( )	( )
22. How home and community life is affected by alcohol drinking	( )	( )	( )	( )

	No Need	Low Need	Medium Need	High Need
23. Air and water pollution as major health hazards	( )	( )	( )	( )
24. How the community prepares itself for emergencies	( )	( )	( )	( )
25. What it means to be a woman	( )	( )	( )	( )
26. How poor teeth can affect the whole body	( )	( )	( )	( )
27. Helpful ways to improve the growth and development of your body	( )	( )	( )	( )
28. How smoking affects the heart and blood pressure	( )	( )	( )	( )
29. How smoking affects your eating habits	( )	( )	( )	( )
30. How your glands affect your growth	( )	( )	( )	( )
31. How to relax	( )	( )	( )	( )
32. How emotional tension is related to both underweight and overweight	( )	( )	( )	( )
33. Why you need to know if your blood is Rh positive or Rh negative	( )	( )	( )	( )
34. Diseases which can be prevented by having a vaccination	( )	( )	( )	( )
35. When you should diet or change your eating habits	( )	( )	( )	( )
36. The relationship between drugs and accidents	( )	( )	( )	( )
37. The selection and use of aids in caring for your teeth and breath	( )	( )	( )	( )
38. Clothing fads and fashions	( )	( )	( )	( )
39. Health insurance--how much it costs and the different kinds available	( )	( )	( )	( )
40. The effects of divorce on parents and children	( )	( )	( )	( )
41. How to avoid worry and nervousness	( )	( )	( )	( )
42. Diseases that are spread in polluted water	( )	( )	( )	( )
43. The functions of the heart	( )	( )	( )	( )
44. How white blood cells help destroy germs in your body	( )	( )	( )	( )
45. The physical changes that take place in your body during adolescence	( )	( )	( )	( )
46. Ways to make your school safe and healthful	( )	( )	( )	( )
47. The meaning of death	( )	( )	( )	( )
48. The effects of identifying and treating illnesses by yourself	( )	( )	( )	( )
49. When you should see a doctor	( )	( )	( )	( )
50. Career opportunities in the health occupations	( )	( )	( )	( )
51. The services and work performed by the World Health Organization	( )	( )	( )	( )
52. Ways to develop confidence in yourself	( )	( )	( )	( )
53. Role of vitamins in supplementing your diet	( )	( )	( )	( )
54. Ways to help lose weight without harming yourself	( )	( )	( )	( )

		No Need	Low Need	Medium Need	High Need
55.	Identifying nutritious snack foods	( )	( )	( )	( )
56.	The danger signs of cancer	( )	( )	( )	( )
57.	Ways to select better food for you to eat	( )	( )	( )	( )
58.	Pros and cons of fluoridation	( )	( )	( )	( )
59.	How to develop your own health standards and values	( )	( )	( )	( )
60.	Factors which regulate the rate of breathing	( )	( )	( )	( )
61.	Factors which determine how much you should weigh	( )	( )	( )	( )
62.	Various characteristics you were born with and others which you have learned	( )	( )	( )	( )
63.	How your attitudes affect the way you behave	( )	( )	( )	( )
64.	What it means to be a man	( )	( )	( )	( )
65.	The birth process	( )	( )	( )	( )
66.	How you should choose a doctor	( )	( )	( )	( )
67.	Birth control	( )	( )	( )	( )
68.	Why it is important to eat at definite times during the day	( )	( )	( )	( )
69.	The problems involved in establishing your own home	( )	( )	( )	( )
70.	The importance of a well-balanced diet in maintaining good health	( )	( )	( )	( )
71.	The marriage relationship	( )	( )	( )	( )
72.	Function of disaster relief programs	( )	( )	( )	( )
73.	How to solve personal problems	( )	( )	( )	( )
74.	Ways to help get along with family and friends	( )	( )	( )	( )
75.	Care and treatment of skin problems	( )	( )	( )	( )
76.	The effect of physical exercise on the body	( )	( )	( )	( )
77.	The rights of the non-smoker	( )	( )	( )	( )
78.	What conditions are necessary for passing on a disease from one person to another	( )	( )	( )	( )
79.	Following a doctor's directions for taking care of simple illnesses	( )	( )	( )	( )
80.	The effects of using drugs for kicks	( )	( )	( )	( )
81.	Finding places in your community where you can get help in solving a personal problem	( )	( )	( )	( )
82.	The importance of enough sleep and rest	( )	( )	( )	( )
83.	The danger of using drugs for weight control	( )	( )	( )	( )
84.	How to help a person who is bleeding severely	( )	( )	( )	( )
85.	The purpose of medical examination	( )	( )	( )	( )
86.	How medicines assist in fighting disease	( )	( )	( )	( )
87.	Dangers of overweight and/or underweight	( )	( )	( )	( )

	No Need	Low Need	Medium Need	High Need
88. How people in your community can help protect their health	( )	( )	( )	( )
89. The effects of medicine on your body	( )	( )	( )	( )
90. Body odor and why you may not be aware of your own odor	( )	( )	( )	( )
91. How to use cosmetics properly	( )	( )	( )	( )
92. How alcohol affects the body	( )	( )	( )	( )
93. How alcohol causes mental changes	( )	( )	( )	( )
94. The effect that drugs may have on your personality	( )	( )	( )	( )
95. Which foods help to build and repair body tissues	( )	( )	( )	( )
96. How to prevent bad breath	( )	( )	( )	( )
97. Safety hazards in the home	( )	( )	( )	( )
98. How smoking can influence the way you live	( )	( )	( )	( )

OTHER TOPICS: What else do you think your child needs to know or learn more about?

appendix I

HEALTH EDUCATION GOALS SURVEY

DIRECTIONS: Your school/school system has been selected to be a part of the West Virginia Health Education Survey. Below you will find a number of ideal goals for a Health Education Program. Read each goal carefully and indicate how well you think your students have achieved each. Please place a check mark (✓) in the box under Noneffective, Below Average, Average, Good, or Excellent for each goal statement.

POSITION: Please indicate your position by placing a check mark (✓) beside the appropriate title below:

( ) Health Supervisor
( ) Administrator
( ) Teacher
( ) Physician
( ) Nurse
( ) Other

THE HEALTH EDUCATION PROGRAM ENABLES THE STUDENT TO:	Non-Effective	Below Average	Average	Good	Excellent
1. Identify personal, physical, social, and emotional health problems	( )	( )	( )	( )	( )
2. Know the health services available within the community and how they function	( )	( )	( )	( )	( )
3. Identify valid health sources and compile factual health information	( )	( )	( )	( )	( )
4. Discriminate between sound and poor health information	( )	( )	( )	( )	( )
5. Analyze and select proper health services	( )	( )	( )	( )	( )
6. Recognize the importance of preventing those conditions which can be prevented	( )	( )	( )	( )	( )
7. Understand the environment of his community and any health problems that may exist in the environment	( )	( )	( )	( )	( )
8. Understand the effects of alcohol, tobacco, drugs, and stimulants	( )	( )	( )	( )	( )
9. Understand the causes of disease and their effect on self and community	( )	( )	( )	( )	( )
10. Understand his role in personal and interpersonal relationships	( )	( )	( )	( )	( )
11. Select foods that will contribute to the building of the body's organs, muscles, and tissues	( )	( )	( )	( )	( )
12. Understand the structure, function, and development of the body	( )	( )	( )	( )	( )
13. Develop a responsibility for personal and community health	( )	( )	( )	( )	( )

appendix J

HEALTH EDUCATION SURVEY

DIRECTIONS: Your school/school system has been selected to be a part of the West Virginia Health Education Survey. Below you will find a number of statements which may hinder a Health Instruction Program. Read each statement carefully and indicate the degree which you think it hinders the health instruction program in your school or school system. Please place a check mark (✓) in the box under Not a Hinderance, Slight Hinderance, Definite Hinderance, or Major Hinderance for each statement.

POSITION: Please indicate your position by placing a check mark (✓) beside the appropriate title below:

( ) Health Supervisor
( ) Administrator
( ) Teacher
( ) Physician
( ) Nurse
( ) Other

	Not A Hinderance	Slight Hinderance	Definite Hinderance	Major Hinderance
1. Corporation does not have a health education supervisor	( )	( )	( )	( )
2. Classroom teacher feels inadequately prepared (content and materials) to teach health	( )	( )	( )	( )
3. Health education contains too many sensitive controversial topics	( )	( )	( )	( )
4. Corporation does not provide enough health education supportive services	( )	( )	( )	( )
5. Corporation does not offer enough health education in-service programs for teachers	( )	( )	( )	( )
6. Inadequate support and service from state-level agencies	( )	( )	( )	( )
7. Schools are unable to secure certified health teachers	( )	( )	( )	( )
8. Too many subjects are demanding top priority in school scheduling time	( )	( )	( )	( )
9. Up-to-date health education materials are not available	( )	( )	( )	( )
10. Appropriate text materials are not provided	( )	( )	( )	( )
11. State curriculum guides for health instructions are not available	( )	( )	( )	( )
OTHER: _____	( )	( )	( )	( )

HEALTH EDUCATION SURVEY

DIRECTIONS: Your school/school system has been selected to be a part of the West Virginia Health Education Survey. Below you will find a number of statements which may hinder a Health Instruction Program. Read each statement carefully and indicate the degree which you think it hinders the health instruction program in your school or school system. Please place a check mark (✓) in the box under Not a Hinderance, Slight Hinderance, Definite Hinderance, or Major Hinderance for each statement.

POSITION: Please indicate your position by placing a check mark (✓) beside the appropriate title below:

( ) Health Supervisor
( ) Administrator
( ) Teacher
( ) Physician
( ) Nurse
( ) Other

	Not A Hinderance	Slight Hinderance	Definite Hinderance	Major Hinderance
1. Corporation does not have a health education supervisor	( )	( )	( )	( )
2. Classroom teacher feels inadequately prepared (content and materials) to teach health	( )	( )	( )	( )
3. Health education contains too many sensitive controversial topics	( )	( )	( )	( )
4. Corporation does not provide enough health education supportive services	( )	( )	( )	( )
5. Corporation does not offer enough health education in-service programs for teachers	( )	( )	( )	( )
6. Inadequate support and service from state-level agencies	( )	( )	( )	( )
7. Schools are unable to secure certified health teachers	( )	( )	( )	( )
8. Too many subjects are demanding top priority in school scheduling time	( )	( )	( )	( )
9. Up-to-date health education materials are not available	( )	( )	( )	( )
10. Appropriate text materials are not provided	( )	( )	( )	( )
11. State curriculum guides for health instructions are not available	( )	( )	( )	( )
OTHER:	( )	( )	( )	( )

appendix K

HEALTH CURRICULUM SURVEY

DIRECTIONS: Your school/school system has been selected to be a part of the West Virginia Health Education Survey. Below you will find a number of content areas one might find in the curriculum of a Health Education Program. Review each of the content areas carefully and indicate in the first column the percent of the present health instruction that is devoted to each area. In the second column, indicate the percent of time you feel should be devoted to each area in an ideal program. In each column, the percentages should total 100.

POSITION: Please indicate your position by placing a check mark (✓) beside the appropriate title below:

( ) Health Supervisor
( ) Administrator
( ) Teacher
( ) Physician
( ) Nurse
( ) Other

		Present Program	Ideal Program
1.	Family Health	_____ %	_____ %
2.	Control and Prevention of Disease	_____ %	_____ %
3.	Drugs, Alchohol, and Smoking	_____ %	_____ %
4.	Safety Education	_____ %	_____ %
5.	Mental Health	_____ %	_____ %
6.	Personal Grooming	_____ %	_____ %
7.	Weight Control	_____ %	_____ %
8.	Nutrition	_____ %	_____ %
9.	Structure and Function of the Human Body	_____ %	_____ %
10.	Community Health	_____ %	_____ %
11.	Consumer Health	_____ %	_____ %
	Other	_____ %	_____ %
	TOTAL	100 %	100 %

appendix L

Table E

Mean and Standard Deviation for Health Interest and Health Needs Inventory Items by Students, Parents and Faculty

Family Health Interest/Need	(N=125) Male Students		(N=153) Female Students		(N=299) Parents		(N=73) Faculty	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
# 4. The meaning of love	3.44	0.77	3.51	0.78	3.12	1.03	3.32	0.87
# 8. The effects of abortion on the mother and father	2.81	0.95	3.28	0.91	2.99	1.07	3.39	0.81
#18. Problems in dating	2.82	1.01	3.18	0.92	2.89	1.04	3.23	0.87
#25. What it means to be a woman	1.86	1.09	3.50	0.87	2.91	1.08	3.19	0.78
#40. The effects of divorce on parents and children	2.85	0.95	3.36	0.83	3.08	1.00	3.44	0.77
#47. The meaning of death	2.99	0.97	3.40	0.85	2.96	1.04	3.16	0.79
#64. What it means to be a man	3.34	0.98	2.20	1.23	2.77	1.18	3.24	0.88
#67. Birth control	2.80	1.00	3.43	0.84	3.00	1.11	3.61	0.62
#69. The problems involved in establishing your own home	2.94	0.96	3.32	0.83	3.14	0.93	3.26	0.80
#71. The marriage relationship	3.16	0.93	3.60	0.79	3.35	0.87	3.51	0.67

Table F

Mean and Standard Deviation for Health Interest and Health Needs Inventory Items by Students, Parents and Faculty

Control and Prevention of Disease Interest/Need	(N=125) Male Students		(N=153) Female Students		(N=299) Parents		(N=73) Faculty	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
# 2. The signs and symptoms of diabetes	2.52	0.95	2.58	0.94	3.01	0.96	3.33	0.76
# 5. Resistance to disease and how you can help to keep it high	3.15	0.91	3.12	0.78	3.22	0.88	3.64	0.59
#19. The relationship of health and personality	2.87	0.89	3.20	0.77	3.10	0.85	3.32	0.71
#20. How to recognize and get treatment for venereal disease	3.03	0.97	2.93	0.95	3.12	0.98	3.62	0.70
#34. Diseases which can be prevented by having a vaccination	2.89	0.88	2.93	0.81	3.00	0.92	3.36	0.78
#42. Diseases that are spread in polluted water	2.86	0.89	2.63	0.95	2.92	0.90	3.08	0.82
#56. The danger signs of cancer	3.24	0.95	3.68	0.54	3.49	0.79	3.66	0.63
#70. The importance of a well-balanced diet in maintaining good health	2.90	0.95	3.03	0.88	3.14	0.88	3.38	0.70
#78. What conditions are necessary for passing on a disease from one person to another	2.93	0.91	3.04	0.87	3.07	0.90	3.43	0.71
#86. How medicines assist in fighting disease	2.82	0.90	3.03	0.76	2.99	0.83	3.10	0.83

Table G

Mean and Standard Deviation for Health Interest and Health Needs Inventory Items by Students, Parents and Faculty

Drugs, Alcohol and Smoking Interest/Need	(N=125) Male Students		(N=153) Female Students		(N=299) Parents		(N=73) Faculty	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
#22. How home and community life is affected by alcohol drinking	2.65	1.06	3.08	0.93	3.05	1.05	3.58	0.64
#28. How smoking affects the heart and blook pressure	2.62	1.08	3.17	0.91	3.15	1.06	3.69	0.62
#29. How smoking affects your eating habits	2.51	1.06	2.89	1.03	3.07	1.05	3.54	0.73
#77. The rights of the non-smoker	2.90	1.06	2.96	1.04	2.74	1.13	3.33	0.84
#80. The effects of using drugs for kicks	2.73	1.20	2.93	1.15	3.26	1.04	3.81	0.52
#83. The danger of using drugs for weight control	2.60	1.08	2.88	1.07	2.98	1.06	3.50	0.71
#92. How alcohol affects the body	2.89	1.07	3.25	0.80	3.13	1.07	3.69	0.60
#93. How alcohol causes mental changes	2.77	1.11	3.25	0.85	3.16	1.06	3.69	0.60
#94. The effect that drugs may have on your personality	2.79	1.00	3.16	0.94	3.20	1.04	3.75	0.60
#98. How smoking can influence the way you live	2.75	1.09	3.10	1.08	3.07	1.06	3.51	0.73

Table H

Mean and Standard Deviation for Health Interest and Health Needs Inventory Items by Students, Parents and Faculty

Safety Education Interest/Need	(N=125) Male Students		(N=153) Female Students		(N=299) Parents		(N=73) Faculty	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
# 6. The types of wounds and how a first aider should help care for them	3.12	0.93	3.21	0.77	3.38	0.82	3.56	0.62
#11. How to prevent and treat shock	3.08	0.82	3.10	0.83	3.36	0.83	3.48	0.71
#14. Where and why most accidents occur in school	2.49	0.98	2.70	0.87	2.84	0.86	3.21	0.75
#15. Helping a person to breathe who has stopped breathing	3.37	0.84	3.54	0.67	3.54	0.77	3.68	0.60
#24. How the community prepares itself for emergencies	2.98	0.82	2.80	0.83	3.12	0.83	3.17	0.65
#36. The relationship between drugs and accidents	2.80	0.97	3.08	0.89	3.25	0.89	3.64	0.68
#46. Ways to make your school safe and healthful	2.61	0.84	2.76	0.85	2.97	0.88	3.14	0.87
#72. Function of disaster relief programs	2.79	0.86	2.89	0.81	2.80	0.89	2.88	0.82
#84. How to help a person who is bleeding severely	3.34	0.81	3.45	0.70	3.49	0.80	3.64	0.63
#97. Safety hazards in the home	3.11	0.79	3.08	0.82	3.02	0.95	3.35	0.73

Table I

Mean and Standard Deviation for Health Interest and Health Needs Inventory Items by Students, Parents and Faculty

Mental Health Interest/Need	(N=125) Male Students		(N=153) Female Students		(N=299) Parents		(N=73) Faculty	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
# 4. The meaning of love	3.44	0.77	3.51	0.78	3.12	1.03	3.32	0.87
#19. The relationship of health and personality	2.87	0.89	3.20	0.77	3.10	0.85	3.32	0.71
#32. Howemotional tension is related to both underweight and overweight	2.75	0.87	3.21	0.84	2.99	0.88	3.38	0.74
#41. How to avoid worry and nervousness	2.88	0.95	3.43	0.73	3.24	0.82	3.47	0.71
#52. Ways to develop confidence in yourself	2.99	0.87	3.31	0.78	3.31	0.79	3.39	0.72
#59. How to develop your own health standards and values	2.91	0.81	2.86	0.78	2.98	0.86	3.25	0.80
#63. How your attitudes affect the way you behave	2.86	0.81	3.28	0.84	3.13	0.86	3.34	0.80
#73. How to solve personal problems	3.13	0.85	3.55	0.77	3.24	0.84	3.61	0.59
#74. Ways to help get along with family and friends	3.22	0.79	3.56	0.70	3.16	0.90	3.46	0.69
#94. The effect that drugs may have on your personality	2.79	1.00	3.16	0.94	3.20	1.04	3.75	0.60

Table J

Mean and Standard Deviation for Health Interest and Health Needs Inventory Items by Students, Parents and Faculty

Personal Grooming Interest/Need	(N=125) Male Students		(N=153) Female Students		(N=299) Parents		(N=73) Faculty	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
# 1. The advantages of physical fitness	3.21	0.85	3.04	0.81	3.12	0.93	3.69	0.62
#12. The importance of your personal appearance and how you look to others	3.17	0.92	3.58	0.73	3.08	1.00	3.47	0.71
#26. How poor teeth can affect the whole body	2.99	0.85	2.97	0.80	3.11	0.83	3.45	0.63
#37. The selection and use of aids in caring for your teeth and breath	2.98	0.82	3.11	0.85	2.90	0.97	3.33	0.73
#38. Clothing fads and fashions	2.74	1.00	3.52	0.75	2.46	1.00	2.50	0.96
#58. Pros and cons of fluoridation	2.43	0.86	2.54	0.88	2.73	0.85	2.78	0.91
#75. Care and treatment of skin problems	3.11	0.81	3.32	0.81	3.01	0.83	3.26	0.71
#90. Body odor and why you may not be aware of your own odor	2.84	1.01	2.97	0.99	2.83	1.02	3.47	0.77
#91. How to use cosmetics properly	2.15	1.10	3.39	0.86	2.61	1.10	2.99	0.82
#96. How to prevent bad breath	2.78	1.05	2.93	0.98	2.75	0.98	3.25	0.82

Table K

Mean and Standard Deviation for Health Interest and Health Needs Inventory Items by Students, Parents and Faculty

Weight Control Interest/Need	(N=125) Male Students		(N=153) Female Students		(N=299) Parents		(N=73) Faculty	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
# 1. The advantages of physical fitness	3.21	0.85	3.04	0.81	3.12	0.93	3.69	0.62
#31. How to relax	3.09	0.96	3.15	0.87	3.07	0.97	3.22	0.89
#32. How emotional tension is related to both underweight and overweight	2.75	0.87	3.21	0.84	2.99	0.88	3.38	0.74
#35. When you should diet or change your eating habits	2.67	0.96	3.09	0.88	2.99	0.82	3.29	0.75
#54. Ways to help lose weight without harming yourself	2.69	1.07	3.08	1.12	2.92	1.01	3.33	0.71
#61. Factors which determine how much you should weigh	2.84	0.89	3.22	0.80	2.80	0.87	3.07	0.79
#76. The effect of physical exercise on the body	3.10	0.95	3.23	0.77	2.93	0.94	3.36	0.66
#82. The importance of enough sleep and rest	3.00	0.88	3.12	0.80	3.05	0.93	3.46	0.65
#83. The danger of using drugs for weight control	2.60	1.08	2.88	1.07	2.98	1.06	3.50	0.71
#87. Dangers of overweight and/or underweight	2.89	0.89	3.19	0.91	2.96	0.90	3.38	0.74

Table L

Mean and Standard Deviation for Health Interest and Health Needs Inventory Items by Students, Parents and Faculty

Nutrition Interest/Need	(N=125) Male Students		(N=153) Female Students		(N=299) Parents		(N=73) Faculty	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
# 7. Why water is necessary to life.	2.76	0.95	2.60	0.91	2.80	1.00	2.96	0.94
# 9. Digestion of food and the kinds of food that help in digestion	2.56	0.89	2.60	0.91	2.83	0.89	3.17	0.77
#16. The basic types and amounts of food that you should eat each day	2.77	0.90	2.79	0.87	3.12	0.90	3.40	0.73
#29. How smoking affects your eating habits	2.51	1.06	2.89	1.03	3.07	1.05	3.54	0.73
#53. Role of vitamins in supplementing your diet	2.68	0.92	2.72	0.86	2.89	0.83	3.08	0.82
#55. Identifying nutritious snack foods	2.76	0.90	2.82	0.89	2.84	0.94	3.25	0.73
#57. Ways to select better food for you to eat	2.97	0.90	3.13	0.84	3.14	0.81	3.34	0.71
#68. Why it is important to eat at definite times during the day	2.58	0.85	2.78	0.78	2.88	0.83	3.01	0.86
#70. The importance of a well-balanced diet in maintaining good health	2.90	0.95	3.03	0.88	3.14	0.88	3.38	0.70
#95. Which foods help to build and repair body tissues	2.89	0.96	2.80	0.79	3.06	0.86	3.25	0.80

Table M

Mean and Standard Deviation for Health Interest and Health Needs Inventory Items by Students, Parents and Faculty

Structure and Function of the Human Body Interest/Need	(N=125) Male Students		(N=153) Female Students		(N=299) Parents		(N=73) Faculty	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
#21. The function of the bones and muscles in your body	2.77	0.89	2.55	0.90	2.86	0.94	2.99	0.83
#27. Helpful ways to improve the growth and development of your body	3.25	0.82	3.27	0.75	3.13	0.81	3.35	0.72
#30. How your glands affect your growth	2.72	0.93	2.74	0.87	3.02	0.87	3.08	0.83
#33. Why you need to know if your blood is Rh positive or Rh negative	2.87	0.91	3.23	0.75	3.22	0.90	3.24	0.85
#43. The functions of the heart	2.76	0.87	2.83	0.87	3.07	0.89	3.12	0.83
#44. How white blood cells help destroy germs in your body	2.53	0.92	2.62	0.95	2.94	0.88	3.00	0.89
#45. The physical changes that take place in your body during adolescence	2.60	0.88	2.92	0.86	3.07	0.88	3.40	0.74
#60. Factors which regulate the rate of breathing	2.67	0.85	2.79	0.85	2.81	0.91	2.90	0.91
#62. Various characteristics you were born with and others which you have learned	2.83	0.93	3.17	0.84	2.80	0.93	2.96	0.87
#65. The birth process	3.00	0.95	3.44	0.78	2.94	1.08	3.37	0.78

Table N

Mean and Standard Deviation for Health Interest and Health Needs Inventory Items by Students, Parents and Faculty

Community Health Interest/Need	(N=125) Male Students		(N=153) Female Students		(N=299) Parents		(N=73) Faculty	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
#10. The reasons for keeping records of births, diseases, and deaths	2.88	0.89	2.92	0.88	3.04	0.86	3.00	0.86
#13. What help you and your family can get from various health organizations	2.68	0.94	2.65	0.85	2.82	0.86	3.30	0.72
#22. How home and community life is affected by alcohol drinking	2.65	1.06	3.08	0.93	3.05	1.05	3.58	0.64
#23. Air and water pollution as major health hazards	2.96	0.91	2.62	0.91	2.94	0.86	3.19	0.72
#24. How the community prepares itself for emergencies	2.98	0.82	2.80	0.83	3.12	0.83	3.17	0.65
#46. Ways to make your school safe and healthful	2.61	0.84	2.76	0.85	2.97	0.88	3.14	0.87
#50. Career opportunities in the health occupations	2.60	0.99	2.92	0.92	3.02	0.90	3.11	0.74
#51. The services and work performed by the World Health Organization	2.44	0.92	2.57	0.78	2.80	0.93	2.54	0.96
#78. What conditions are necessary for passing on a disease from one person to another	2.93	0.91	3.04	0.87	3.07	0.90	3.43	0.71
#88. How people in your community can help protect their health	2.66	0.92	2.69	0.81	2.86	0.89	3.07	0.74

Table O

Mean and Standard Deviation for Health Interest and Health Needs Inventory Items by Students, Parents and Faculty

Consumer Health Interest/Need	(N=125) Male Students		(N=153) Female Students		(N=299) Parents		(N=73) Faculty	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
# 3. Selecting non-prescription drugs	2.62	1.09	2.71	0.93	2.95	1.01	3.47	0.74
#17. Evaluating consumer health products and foods	2.46	0.94	2.47	0.79	2.91	0.80	3.16	0.75
#39. Health insurance--how much it costs and the different kinds available	2.83	0.94	2.87	0.88	2.89	0.95	3.22	0.73
#48. The effects of identifying and treating illnesses by yourself	2.97	0.80	3.08	0.81	3.08	0.86	3.18	0.87
#49. When you should see a doctor	3.09	0.75	3.20	0.78	3.17	0.84	3.40	0.74
#66. How you should choose a doctor	2.99	0.83	3.21	0.83	3.08	0.95	3.19	0.75
#79. Following a doctor's directions for taking care of simple illnesses	2.94	0.88	3.05	0.76	2.98	1.00	3.28	0.81
#81. Finding places in your community where you can get help in solving a personal problem	2.76	0.93	2.83	0.93	2.90	0.94	3.57	0.71
#85. The purpose of medical examination	2.96	0.90	3.15	0.79	3.06	0.86	3.42	0.71
#89. The effects of medicine on your body	3.01	0.78	2.97	0.81	3.09	0.76	3.35	0.76

Summary of Tables

A. Statements with response of most interest were:

MALES

# 4	The meaning of love	3.44
#15	Helping a person to breathe who has stopped breathing	3.37
#64	What it means to be a man	3.34
#84	How to help a person who is bleeding severely	3.34
#27	Helpful ways to improve the growth and development of your body	3.25

FEMALES

#56	The danger signs of cancer	3.68
#71	The marriage relationship	3.60
#12	The importance of your personal appearance and how you look to others	3.58
#74	Ways to help get along with family and friends	3.56
#73	How to solve personal problems	3.55

B. Needs of students as perceived by:

FACULTY

#80	The effects of using drugs for kicks	3.81
#94	The effects that drugs may have on your personality	3.75
#92	How alcohol affects the body	3.69
#93	How alcohol causes mental changes	3.69
# 1	The advantages of physical fitness	3.69

PARENTS

#56	The danger signs of cancer	3.49
#84	How to help a person who is bleeding severely	3.49
# 6	Types of wounds and how a first aider should care for them	3.38
#11	How to prevent and treat shock	3.36
#71	The marriage relationship	3.35
#62	Various characteristics you were born with and others which you have learned	2.80

Summary of Tables

A. Statements of response of least interest:

MALES

#25	What it means to be a woman	1.86
#91	How to use cosmetics properly	2.15
#58	Pros and cons of fluoridation	2.43
#51	The services and work performed by the World Health Organization	2.44
#17	Evaluating consumer health products and food	2.46

FEMALES

#64	What it means to be a man	2.20
#58	Pros and cons of fluoridation	2.54
#21	The function of the bones and muscles in your body	2.55
# 7	Why water is necessary for life	2.60
# 9	Digestion of food and the kinds of foods that help in digestion	2.60

B. Statements reflecting students' least needs as perceived by:

FACULTY

#38	Clothing fads and fashions	2.50
#51	The services and work performed by the World Health Organization	2.54
#58	Pros and cons of fluoridation	2.78
#72	Function of disaster relief programs	2.88
# 7	Why water is necessary to life	2.96

PARENTS

#38	Clothing fads and fashions	2.46
#77	The rights of non-smokers	2.74
#64	What it means to be a man	2.77
#61	Factors which determine how much you should weigh	2.80
# 7	Why water is necessary to life	2.80
#62	Various characteristics you were born with and others which you have learned	2.80

appendix M

Table P

HEALTH INTEREST INVENTORY

Mean and standard deviation of Site B & C eleventh grade students by sex

Site B

Sex	Number of Subjects	Number of Test Items*	Mean	Standard Deviation
Males	40	98	2.77	0.59
Females	35	98	3.03	0.37

Site C

Sex	Number of Subjects	Number of Test Items*	Mean	Standard Deviation
Males	18	98	2.85	0.38
Females	38	98	3.03	0.37

*Some items were used for more than one interest area.

appendix N

Table Q

HEALTH BEHAVIOR INVENTORY

Mean, standard deviaion, and national percentile of sites A, B, C, eleventh grade students by sex

Site	Number of Test Items	Male				Female			
		Number of Subjects	Mean	Standard Deviation	Percentile*	Number of Subjects	Mean	Standard Deviation	Percentile*
Site A	75	41	41.95	13.54	18	39	47.07	11.29	12
Site B	75	25	29.64	13.20	7	39	38.33	12.96	2
Site C	75	18	42.22	12.63	18	37	47.56	7.82	14

*Percentile based on national norms provided in test manual

Table R

HEALTH BEHAVIOR INVENTORY

Mean, standard deviation, and national percentile of Site C eleventh grade students by sex

Sex	Number of Subjects	Number Test Items	Mean	Standard Deviation	Percentile*
Males	18	75	42.22	12.63	18
Females	37	75	47.56	7.82	14

Mean, standard deviation, and national percentile of Site B eleventh grade students by sex

Sex	Number of Subjects	Number Test Items	Mean	Standard Deviation	Percentile*
Males	25	75	29.64	13.20	7
Females	39	75	38.33	12.96	2

*Percentile based on national norms provided in test manual.

appendix O

Table S

Marriages by Age of Bride and Groom, 1974

	Total	Groom 10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 & Over
Total	17,409	1	3,473	7,559	2,640	1,078	642	446	420	343	243	226	338
Bride													
10 - 14	55	-	35	18	2	-	-	-	-	-	-	-	-
15 - 19	7,583	1	3,013	3,843	549	113	38	10	5	5	3	2	1
20 - 24	5,414	-	392	3,267	1,289	284	97	41	23	13	1	4	3
25 - 29	1,594	-	28	334	598	352	140	75	33	17	10	4	3
30 - 34	762	-	4	69	131	214	157	91	46	29	10	6	5
35 - 39	504	-	-	20	48	73	125	84	72	37	19	20	6
40 - 44	407	-	-	6	17	28	56	76	94	67	30	18	15
45 - 49	354	-	1	1	2	9	19	48	91	76	57	26	24
50 - 54	270	-	-	1	2	4	9	15	38	65	54	52	30
55 - 59	171	-	-	-	-	1	-	2	16	23	36	42	51
60 - 64	136	-	-	-	-	-	1	2	2	8	15	39	69
65 & Over	158	-	-	-	1	-	-	2	-	3	8	13	131
Age Unk.	1	-	-	-	1	-	-	-	-	-	-	-	-

Source:

Vital Statistics, 1974. West Virginia Department of Health: Division of Vital Statistics, p. 92.

Table T

Divorces and Annulments by Age of Husband and by Age of Wife, 1974

		Age of Husband											
Total	Total	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60 & Over	Age Unk.
	7,176	1	123	1,270	1,427	910	691	523	458	325	165	266	1,017
Age of Wife													
10 - 14	1	-	-	1	-	-	-	-	-	-		-	-
15 - 19	553	1	105	345	71	12	4	4	2	1	1	2	5
20 - 24	1,626	-	13	811	630	119	21	14	6	2	1	-	8
25 - 29	1,280	-	3	91	634	378	109	35	15	7	1	3	4
30 - 34	795	-	1	7	59	321	270	82	27	14	4	8	2
35 - 39	610	-	-	4	15	54	228	189	71	24	10	11	4
40 - 44	422	-	-	-	2	12	30	151	139	53	18	16	1
45 - 49	351	-	-	-	2	3	11	32	130	103	38	30	2
50 - 54	233	-	-	-	1	-	4	6	46	93	40	41	-
55 - 59	129	-	-	-	-	1	3	7	10	16	39	52	1
60 & Over	124	-	-	-	-	1	-	2	2	6	12	100	1
Age Unk.	1,052	-	1	11	13	9	11	1	10	3	1	3	989

Source:
Vital Statistics, 1974. West Virginia Department of Health: Division of Vital Statistics, p. 95.

Table U

Divorces and Annulments, Number and Percent; by Duration of Marriage, 1974

	Total	Percent of Total
Total	7,176	100.0
Duration of Marriage by Years:		
Less than 1	498	7.0
1 - 5 Years	3,136	43.7
6 - 10 Years	1,403	19.6
11 - 15 Years	731	10.2
16 - 20 Years	553	7.7
21 - 25 Years	378	5.3
26 - 30 Years	265	3.7
31 - 35 Years	104	1.4
36 - 40 Years	60	0.8
41 - 45 Years	15	0.2
46 - 50 Years	8	0.1
51 - 55 Years	2	0.0
56 - 60 Years	2	0.0
61 and over	1	0.0
Duration unknown	20	0.3

Source:
Vital Statistics, 1974. West Virginia Department of Health: Division of Vital Statistics, p. 96.

Table V

Newly Reported Cases of Venereal Diseases in Civilians by Age and Sex, United States, 1973-1974

Gonorrhea
1973 and 1974

Age Group	Male				Female				Total			
	1973		1974		1973		1974		1973		1974	
	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
0-14	2,911	10.3	3,061	11.0	7,903	28.9	8,449	31.6	10,814	19.4	11,510	21.1
15-19	108,221	1075.2	111,273	1089.7	124,773	1234.5	137,484	1342.9	232,994	1155.0	248,757	1216.5
20-24	205,495	2479.4	213,897	2496.2	127,928	1406.7	140,253	1511.2	333,423	1918.2	354,150	1984.0
25-29	107,852	1461.6	116,556	1511.6	44,203	565.8	48,492	595.7	152,055	1000.9	165,048	1041.2
30-39	62,812	546.2	66,833	564.3	21,788	176.5	22,896	180.3	84,600	354.8	89,729	365.6
40-49	16,411	145.2	16,808	150.2	4,497	37.3	4,802	40.3	20,908	89.5	21,610	93.5
50 Plus	6,119	25.9	6,137	25.7	1,708	5.9	2,002	6.8	7,827	14.9	8,139	15.3
TOTAL	509,821	507.2	534,565	527.7	332,800	309.4	364,378	336.2	842,621	404.9	898,943	428.7

Primary and Secondary Syphilis
1973 and 1974

Age Group	Male				Female				Total			
	1973		1974		1973		1974		1973		1974	
	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
0-14	90	.3	77	.3	172	.6	193	.7	262	.5	270	.5
15-19	1,880	18.7	2,031	19.9	1,989	19.7	1,961	19.2	3,869	19.2	3,992	19.5
20-24	4,662	56.3	4,963	57.9	2,513	27.6	2,333	25.1	7,175	41.3	7,296	40.9
25-29	3,977	53.9	4,152	53.8	1,374	17.6	1,346	16.5	5,351	35.2	5,498	34.7
30-39	4,022	35.0	4,369	36.9	1,275	10.3	1,108	8.7	5,297	22.2	5,477	22.3
40-49	1,631	14.4	1,665	14.9	472	3.9	392	3.3	2,103	9.0	2,057	8.9
50 Plus	626	2.7	646	2.7	142	.5	149	.5	768	1.5	795	1.5
TOTAL	16,888	16.8	17,903	17.7	7,937	7.4	7,482	6.9	24,825	11.9	25,385	12.1

Reference - U. S. Department of Health, Education, and Welfare, *Reported Morbidity and Mortality in the United States 1974*, Vol. 23, No. 53, p. 14.

Table W

Congenital Syphilis
1973 and 1974

Age	Number of Cases		Percent of Total	
	1973	1974	1973	1974
< 1	313	270	20.5	23.8
1-4	81	59	5.3	5.2
5-9	11	13	.7	1.1
10+	1,122	795	73.5	69.9
TOTAL	1,527	1,137	100.0	100.0

Reference - U.S. Department of Health, Education, and Welfare, *Reported Morbidity and Mortality in the United States 1974*, Vol. 23, No. 53, p. 14.

Table X

Age of Admissions to Drug Treatment Programs* in West Virginia by Region for July 1, 1974 - June 30, 1975

	Region									
Age	1	2	3	4	5	6	7-8	9	10-11	Total
0-13	3	1	1	0	1	4	0	1	0	11
14-15	4	1	9	0	1	17	0	4	6	42
16-18	29	12	28	4	9	26	1	11	23	143
19-20	7	14	25	1	7	15	1	8	11	89
21-25	17	9	33	5	1	27	2	6	24	124
26-35	5	10	27	0	1	6	1	6	7	63
36-45	5	1	8	0	0	2	0	1	1	16
Over 45	6	1	7	1	1	0	2	0	1	19
Unknown	0	0	2	1	0	0	0	0	0	3
Total	76	51	127	11	21	97	7	37	73	510

*Excluding Federal Reformatory for Women, Alderson, West Virginia, and Guthrie Drug Abuse Center

Reference - West Virginia Department of Mental Health: Division of Alcoholism and Drug Abuse, *The Comprehensive State Plan of West Virginia for the Prevention, Treatment, Rehabilitation and Research of Drug Abuse*, 1976, p. 28.

Table Y

Drug Related Deaths

Drug Related Deaths for FY 74-75

Classification	Age				
	0-17	18-30	31-50	50+	Total
Accident	3	1	4	5	13
Suicide	0	3	5	2	10
Unspecified	1	3	3	3	10
Total	4	7	12	10	33

Reference - West Virginia Department of Mental Health: Division of Alcoholism and Drug Abuse, *The Comprehensive State Plan of West Virginia for the Prevention, Treatment, Rehabilitation and Research of Drug Abuse*, 1976, p. 39.

Table Z

1974 Cancer Death Rates* in West Virginia by Age and Sex

Age	Male	Female	Both Sexes
Under 5	4.2	1.5	2.9
5 - 14 Years	7.0	1.8	4.5
15 - 24 Years	8.2	7.8	8.0
25 - 44 Years	37.2	43.9	40.2
45 - 64 Years	337.9	274.1	304.5
65 - 74 Years	1,073.4	576.6	800.5
75 and over	1,605.5	976.3	1,243.1
All Ages	215.1	162.3	187.9

* Specific Rate Per 100,000: 1973 Population Base

Source:
Cancer in West Virginia, 1974. West Virginia State Department of Health: Division of Cancer Control, p. 14.